	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING FORM 3 AMENDED REPORT DIVISION OF OIL, GAS AND MINING												
APPLICATION FOR PERMIT TO DRILL									1. WELL NAME and N	UMBER FD 16-10-3	-2 SWD		
2. TYPE O	F WORK	DDII I NEW ME	u 🙈 DEE	NTED DO	A WELL A DEEDEN	MELL C			3. FIELD OR WILDCAT UNDESIGNATED				
4. TYPE O	F WELL	DRILL NEW WE	LL W REE	NTER P&	A WELL DEEPEN	WELL ()			5. UNIT or COMMUNI			NT NAM	E
6. NAME C	F OPERATOR		r Disposal Well	(Coalbed Methane Well: N	10			7. OPERATOR PHONE	<u> </u>			
8 ADDRES	SS OF OPERAT	TOP.	BIL	L BARRE	TT CORP				9. OPERATOR E-MAI	303 312-	8164		
		1	099 18th Street	t Ste 230	0, Denver, CO, 80202	· · · · · · · · · · · · · · · · · · ·				ers@billbar	rettcorp.co	m	
	AL LEASE NUI ., INDIAN, OR S				11. MINERAL OWNERS FEDERAL IND	IAN (STATE)	\supset	FEE 📵		DIAN	STATE (FE	E 📵
13. NAME	OF SURFACE	OWNER (if box 1		Barrett C	orporation				14. SURFACE OWNE	R PHONE (i 303-293-		'fee')	
15. ADDRI	ESS OF SURF	ACE OWNER (if b	ox 12 = 'fee')		300, Denver, CO 80202				16. SURFACE OWNE			: 'fee')	
17. INDIAN	I ALL OTTEE (OR TRIBE NAME	J99 Totti Street,	, Suite 23	18. INTEND TO COMM		N FRO	OM	19. SLANT				
	= 'INDIAN')				YES (Submit C	NS commingling Applica	tion)	NO 📵	VERTICAL DI	RECTIONAL	— но	DRIZONT	AL 🔵
20. LOCA	TION OF WEL	L		FO	OTAGES	QTR-QTR		SECTION	TOWNSHIP	RAN	GE	ME	RIDIAN
LOCATIO	N AT SURFAC	E		400 FS	SL 150 FEL	SESE		10	3.0 S	2.0	E		U
Top of U	ppermost Pro	ducing Zone		400 FS	SL 150 FEL	SESE		10	3.0 S	2.0	E		U
At Total	Depth			400 FS	SL 150 FEL	SESE		10 3.0 S		2.0	E	U	
21. COUN	TY	UINTAH			22. DISTANCE TO NEA	REST LEASE LINE (Feet)		23. NUMBER OF ACR	ES IN DRILI 40	ING UNIT		
					25. DISTANCE TO NEA (Applied For Drilling of		E POC	DL	26. PROPOSED DEPT	H D: 5654 T	VD: 5654		
27. ELEVA	TION - GROU	ND LEVEL 4831			28. BOND NUMBER LPM4138148			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 43-180				E	
					Hole, Casing,	, and Cement Inf	orma	ition					
String	Hole Size	Casing Size	Length	Weigh	t Grade & Thread	Max Mud Wt			Cement		Sacks	Yield	Weight
COND	26	16	0 - 80	65.0	Unknown	8.8			No Used		0	0.0	0.0
SURF	12.25	9.625	0 - 1800	36.0	J-55 ST&C	8.8		Halliburto	on Light , Type Unk	nown	240	3.16	11.0
								Halliburton	Premium , Type Ur	ıknown	210	1.36	14.8
PROD	8.75	7	0 - 5654	17.0	L-80 LT&C	9.6	_		Unknown		620	2.31	11.0
									Unknown		170	1.42	13.5
					Α.	TTACHMENTS							
	VE	RIFY THE FOLL	OWING ARE	ATTAC	CHED IN ACCORDAN	ICE WITH THE UT	АН О	OIL AND GAS	CONSERVATION G	SENERAL	RULES		
⊯ wi	ELL PLAT OR I	MAP PREPARED B	BY LICENSED S	URVEYO	R OR ENGINEER	✓ co	MPLET	TE DRILLING P	LAN				
AF	FIDAVIT OF ST	ATUS OF SURFA	CE OWNER AGI	REEMEN	T (IF FEE SURFACE)	FOR	M 5. IF	F OPERATOR I	S OTHER THAN THE L	EASE OWN	≣R		
DIF	RECTIONAL SU	JRVEY PLAN (IF [DIRECTIONALL	Y OR HO	RIZONTALLY DRILLED) гор	OGRA	PHICAL MAP					
NAME Ve	nessa Langma	cher		TITL	E Senior Permit Analyst			PHONE 303	312-8172				
SIGNATU	RE			DAT	E 07/25/2012			EMAIL vlang	macher@billbarrettcor	p.com			
	BER ASSIGNEI 04753004			APP	ROVAL			Brok	ogill				
						Permi	t Manager						

BILL BARRETT CORPORATION <u>DRILLING PLAN</u>

FD 16-10-3-2 SWD

SE SE, 400' FSL and 150' FEL, Section 10, T3S-R2E, USB&M Uintah County, Utah

1 - 2. <u>Estimated Tops of Geological Markers and Formations Expected to Contain Water, Oil and</u> Gas and Other Minerals

Formation	Depth – MD	Depth - TVD
*Green River	4,234'	4,234'
Mahogany	5,554'	5,554'
TD	5,654'	5,654'

^{*}The Green River formation is the injection zone for the proposed disposal well.

3. **BOP and Pressure Containment Data**

Depth Intervals	BOP Equipment					
0-1,800	No pressure control required (may pre-set 9-5/8" will smaller rig)					
1,800' – TD						
	11" 5000# Annular BOP					
- Drilling spool to a	accommodate choke and kill lines;					
- Ancillary equipme	ent and choke manifold rated at 5,000 psi. All BOP and BOPE tests will be in					
accordance with the	he requirements of onshore Order No. 2;					
- The BLM and the	State of Utah Division of Oil, Gas and Mining will be notified 24 hours in					
advance of all BC	advance of all BOP pressure tests.					
- BOP hand wheels may be underneath the sub-structure of the rig if the drilling rig used is set up						
To operate most e	fficiently in this manner.					

4. <u>Casing Program</u>

	Hole Size	SETTING	DEPTH	Casing	Casing	Casing		
		(FROM)	<u>(TO)</u>	<u>Size</u>	Weight	<u>Grade</u>	Thread	Condition
	26"	Surface	80'	16"	65#			
Ī	12 1/4"	Surface	1,800'	9 5/8"	36#	J 55	ST&C	New
	8 3/4"	Surface	TD	7"	26#	L 80	LT&C	New

^{*}The casing program is based on recent wells drilled by Axia in the immediate area.

Note: 9-5/8" casing may be preset with a spudder rig. If this occurs, the following equipment shall be in place and operational during air/gas drilling:

- Properly lubricated and maintained rotating head
- Spark arresters on engines or water cooled exhaust
- Blooie line discharge 100 feet from well bore and securely anchored
- Straight run on blooie line unless otherwise approved
- Deduster equipment
- All cuttings and circulating medium shall be directed into a reserve or blooie pit
- Float valve above bit

Bill Barrett Corporation Drilling Program FD 16-10-3-2 SWD Uintah County, Utah

- Automatic igniter or continuous pilot light on the blooie line
- Compressors located in the opposite direction from the blooie line a minimum of 100 feet from the well bore
- Mud circulating equipment, water, and mud materials (does not have to be premixed) sufficient to maintain the capacity of the hole and circulating tanks or pits

5. <u>Cementing Program</u>

16" Conductor Casing	Grout
9 5/8" Surface Casing	Lead: 240 sx Halliburton Light Premium with additives
	mixed at 11.0 ppg (yield = $3.16 \text{ ft}^3/\text{sx}$) circulated to surface
(may pre-set with spudder rig)	with 75% excess. TOC @ Surface
	Tail: 210 sx Halliburton Premium Plus cement with
	additives mixed at 14.8 ppg (yield = $1.36 \text{ ft}^3/\text{sx}$), calculated
	hole volume with 75% excess. TOC @ 1,300'
7" Production Casing	Lead: 620 sx Tuned Light cement with additives mixed at
	11.0 ppg (yield = $2.31 \text{ ft}^3/\text{sx}$). TOC @ 1,300'
	Tail: 170 sx Halliburton Econocem cement with additives
	mixed at 13.5 ppg (yield = $1.42 \text{ ft}^3/\text{sx}$). Top of cement to
	be determined by log and sample evaluation; estimated TOC
	@ 5,054'

6. <u>Mud Program</u>

<u>Interval</u>	<u>Weight</u>	Viscosity	Fluid Loss (API filtrate)	<u>Remarks</u>
0'-80'	8.3 - 8.8	26 - 36	NC	Freshwater Spud Mud Fluid
				System
80' - 1,800'	8.3 - 8.8	26 - 36	NC	Freshwater Spud Mud Fluid
				System
1,800' – TD	8.6 - 9.6	42 - 52	20 cc or less	DAP Polymer Fluid System

Note: Sufficient mud materials to maintain mud properties, control lost circulation and to contain "kicks" will be available at wellsite. BBC may require minor amounts of diesel to be added to its fluid system in order to reduce torque and drag.

7. Testing, Logging and Core Programs

Cores	None anticipated;
Testing	None anticipated; drill stem tests may be run on shows of interest;
Sampling	30' to 50' samples; surface casing to TD. Preserve samples all show intervals;
Surveys	MWD as needed to land wellbore;
Logging	DIL-GR-SP, FDC-CNL-GR-CALIPER-Pe-Microlog, Sonic-GR (all TD to surface).
	FMI & Sonic Scanner to be run at geologist's discretion.

Bill Barrett Corporation Drilling Program FD 16-10-3-2 SWD Uintah County, Utah

8. <u>Anticipated Abnormal Pressures or Temperatures</u>

No abnormal pressures or temperatures or other hazards are anticipated.

Maximum anticipated bottom hole pressure equals approximately 2822 psi* and maximum anticipated surface pressure equals approximately 1578 psi** (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

*Max Mud Wt x 0.052 x TD = A (bottom hole pressure)

9. <u>Auxiliary Equipment</u>

- a) Upper kelly cock; lower Kelly cock will be installed while drilling
- b) Inside BOP or stab-in valve (available on rig floor)
- c) Safety valve(s) and subs to fit all string connections in use Mud monitoring will be visually observed

10. <u>Location and Type of Water Supply</u>

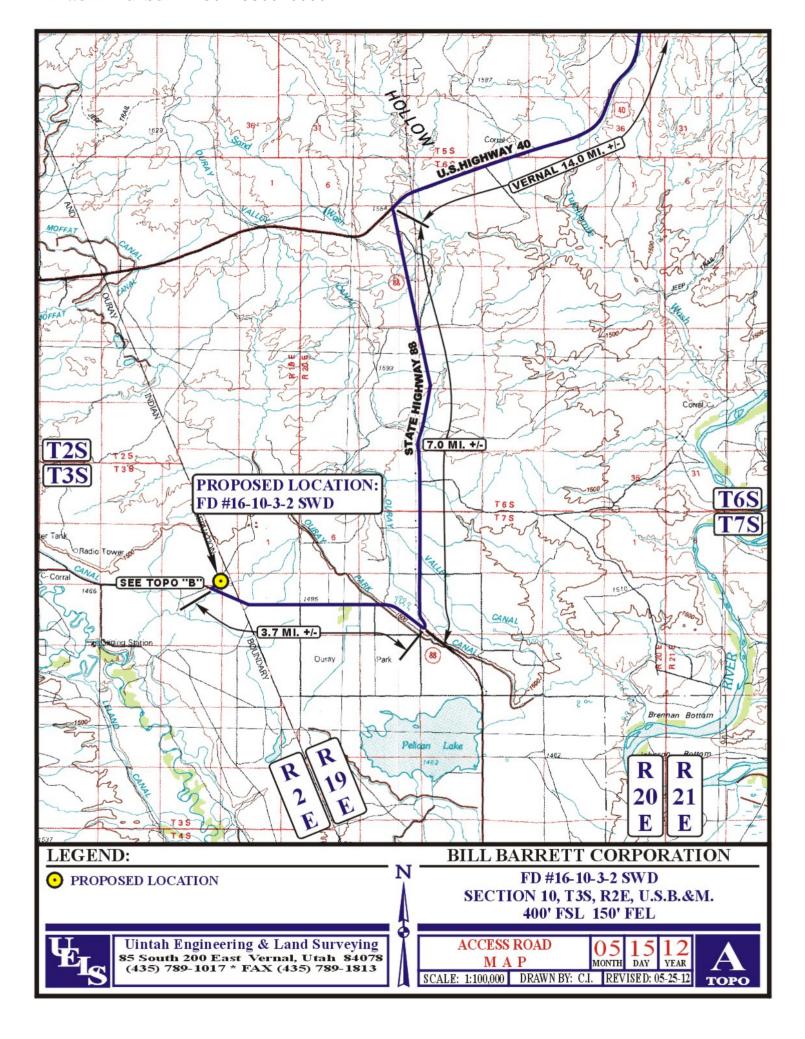
Water for the drilling and completion will be trucked from the Green River located in Sec. 33, T8S-R20E.

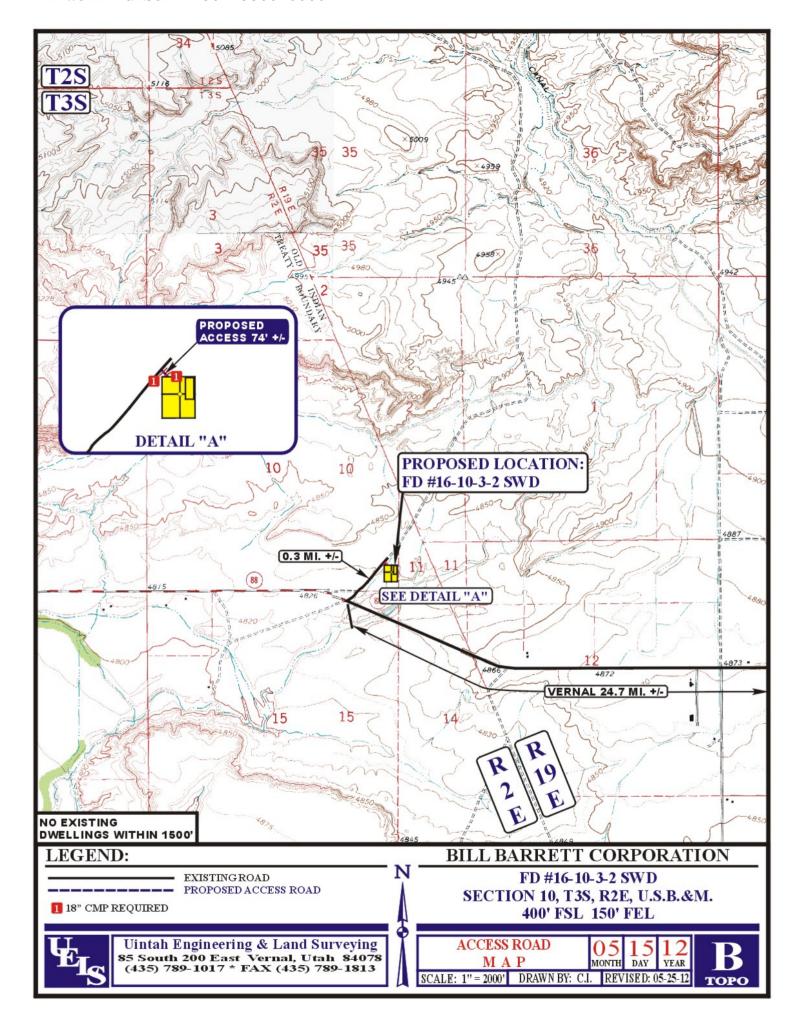
11. <u>Drilling Schedule</u>

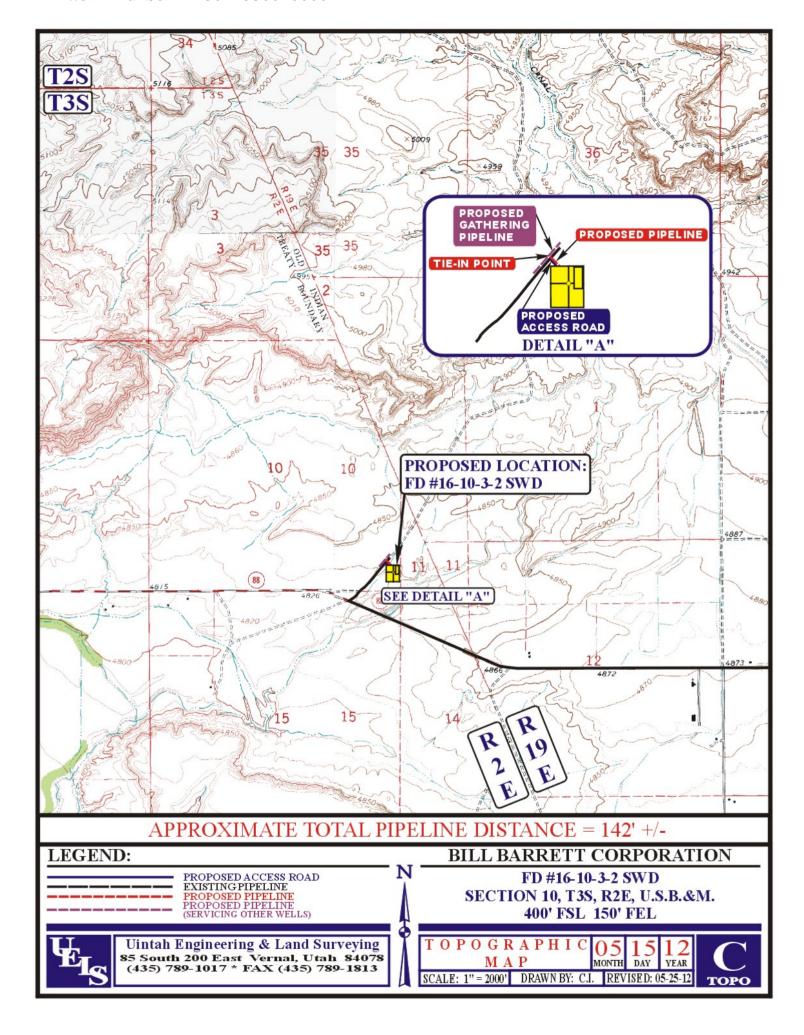
Location Construction: September 2012
Spud: September 2012
Duration: 15 days drilling time
45 days completion time

RECEIVED: July 25, 2012

^{**}Maximum surface pressure = A - (0.22 x TD)

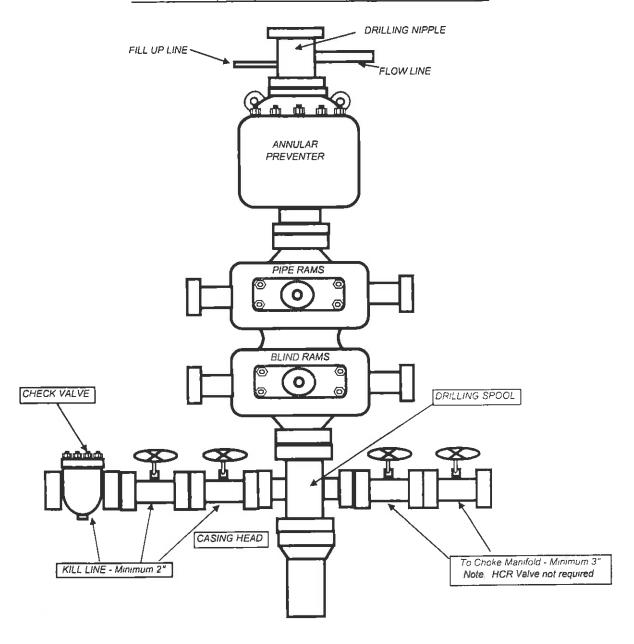






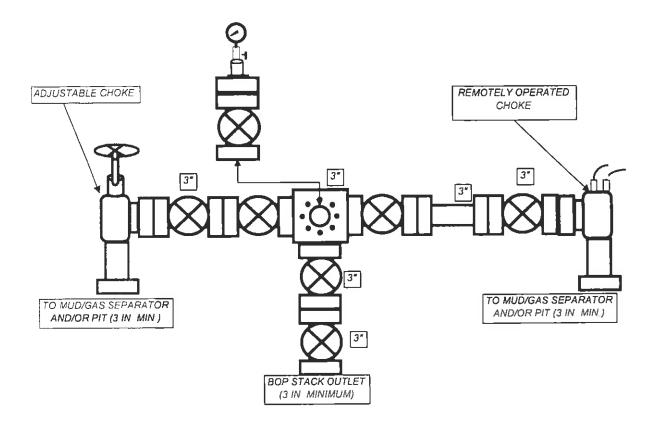
BILL BARRETT CORPORATION

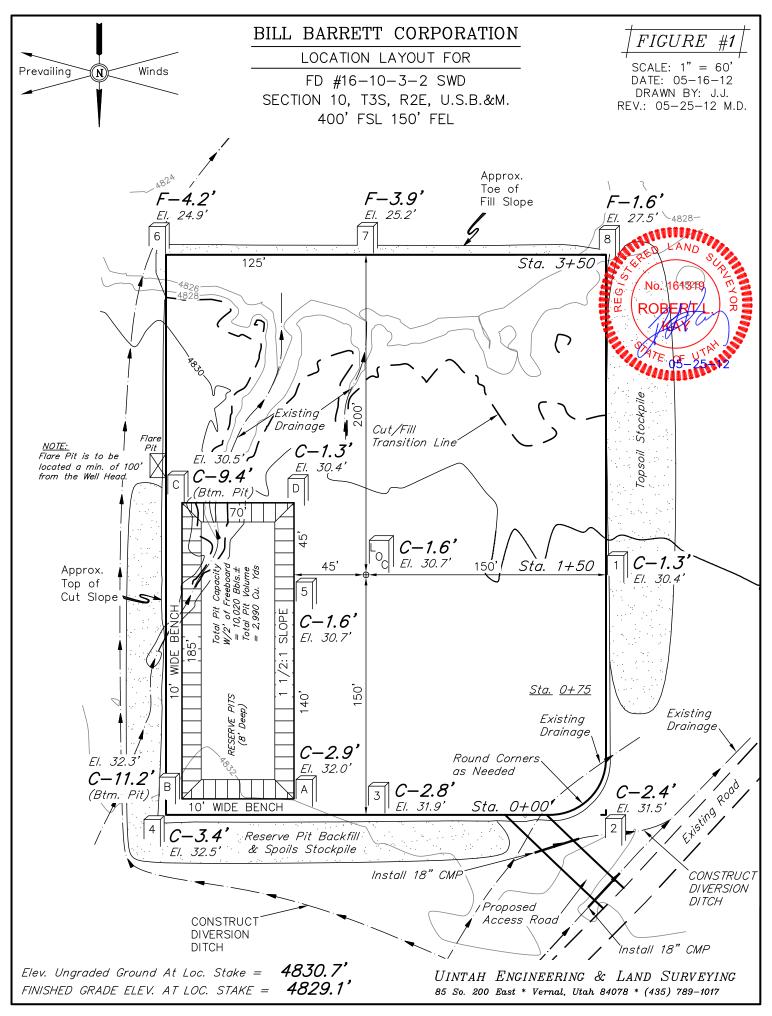
TYPICAL 5,000 p.s.i. BLOWOUT PREVENTER



BILL BARRETT CORPORATION

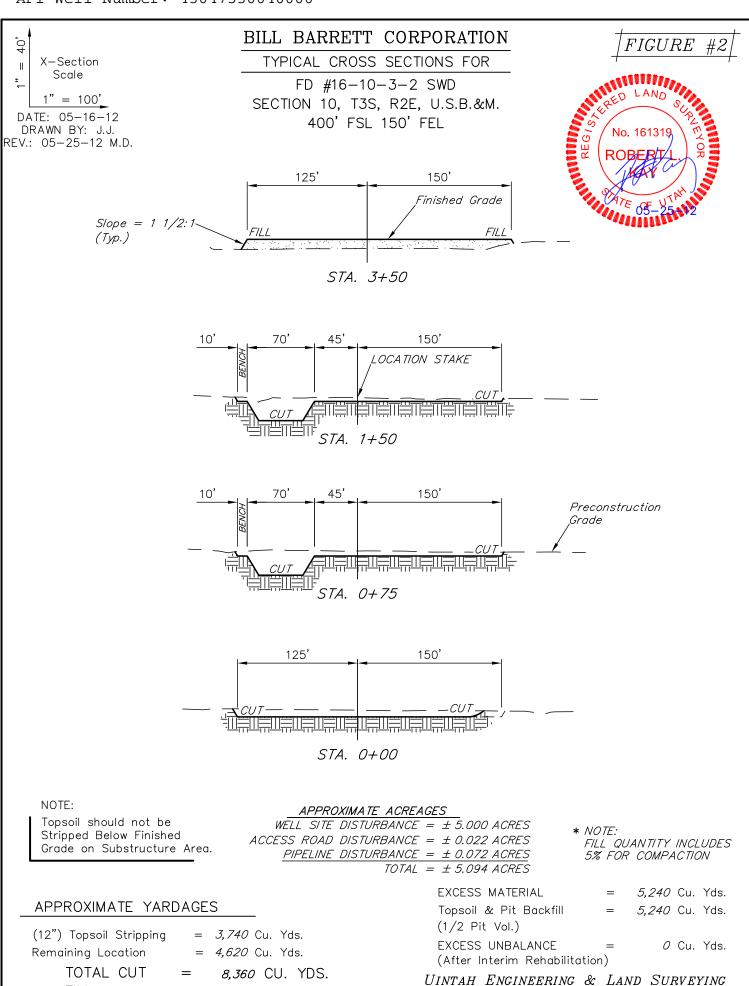
TYPICAL 5,000 p.s.i. CHOKE MANIFOLD





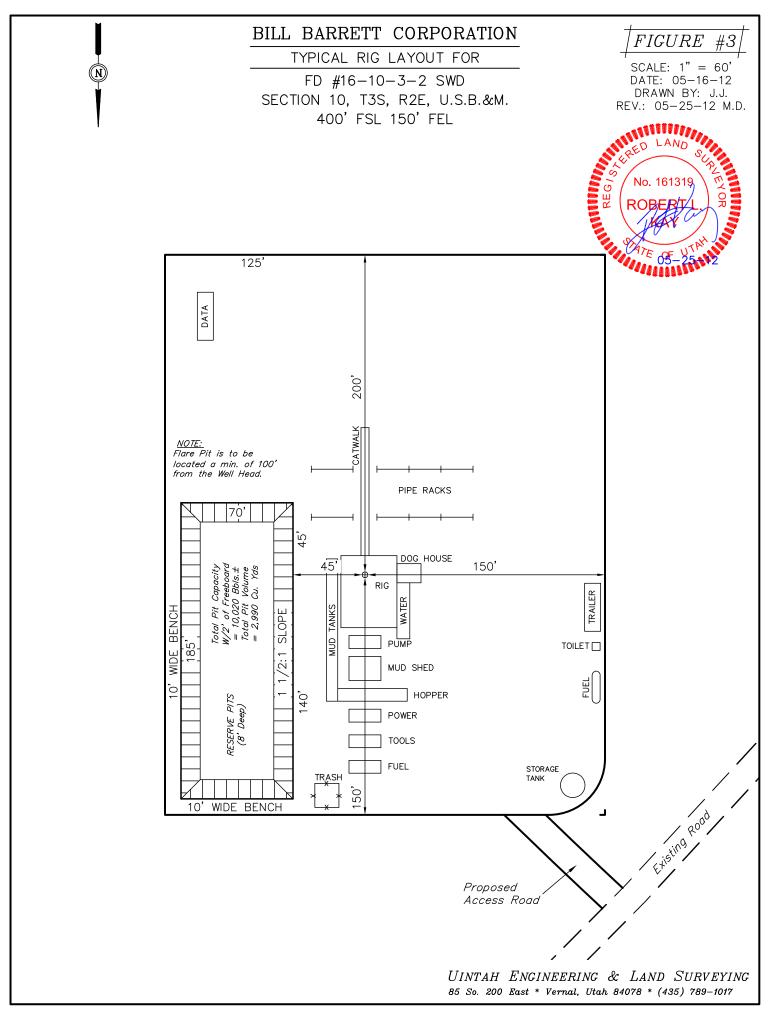
FILL

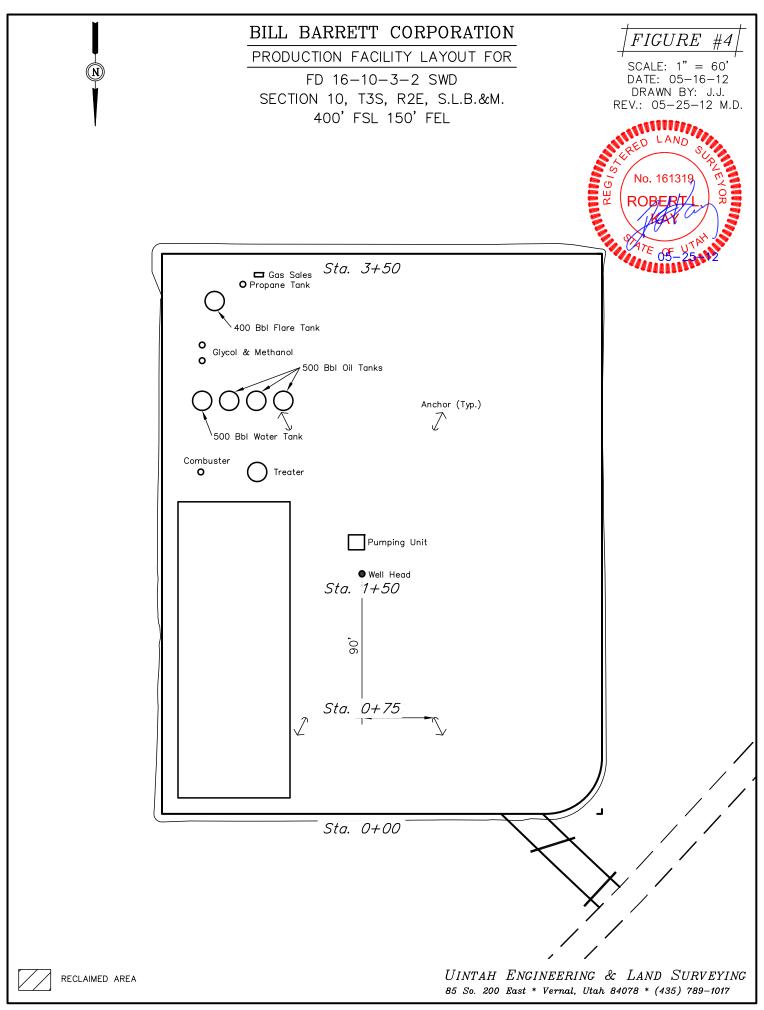
3,120 CU. YDS.

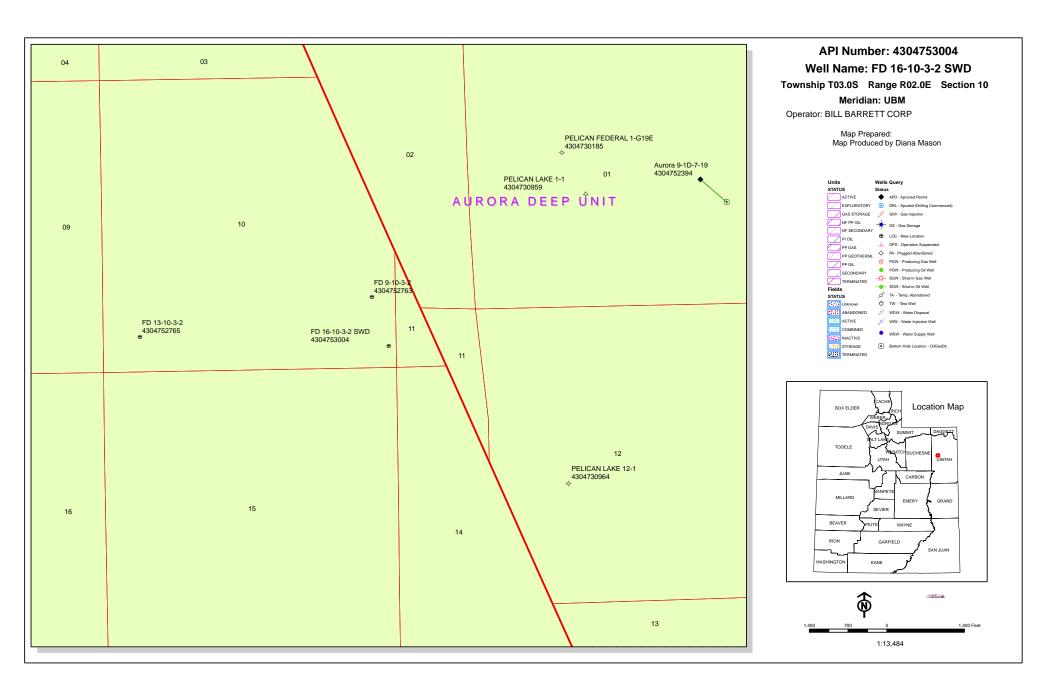


RECEIVED: July 25, 2012

85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017









August 1, 2012

Ms. Diana Mason – Petroleum Technician **STATE OF UTAH DIVISION OF OIL, GAS AND MINING** 1594 West North Temple, Suite 1210 P. O. Box 145801 Salt Lake City, Utah 84114-5801

Re: Exception Location – FD 16-10-3-2 – East Bluebell Area

Surface Location: 400' FSL, 150' FEL, SESE, Section 10-T3S-R2E Uintah County, Utah

Dear Ms. Mason,

Bill Barrett Corporation ("BBC") hereby submits an exception location letter in accordance with Oil & Gas Conservation Rules R649-3-3, requesting an exception well location, supported by the following information:

- The location is within our East Bluebell Area.
- The exception location is due to topography requirements and to minimize surface disturbance.
- BBC certifies that it is the only working interest owner within 460 feet of the proposed well location.
- BBC has recently acquired this surface location and the subsequent mineral rights from Lever, LTD.
- This location is being used for salt water disposal. It will not be produced.

Based on the information provided, BBC requests the Division grant this exception to the locating and siting requirements of R649-3-2. Should you have any questions or need further information, please contact me at 303-299-9935

Sincerely,

Thomas J. Abell

Venevia Gangmachel

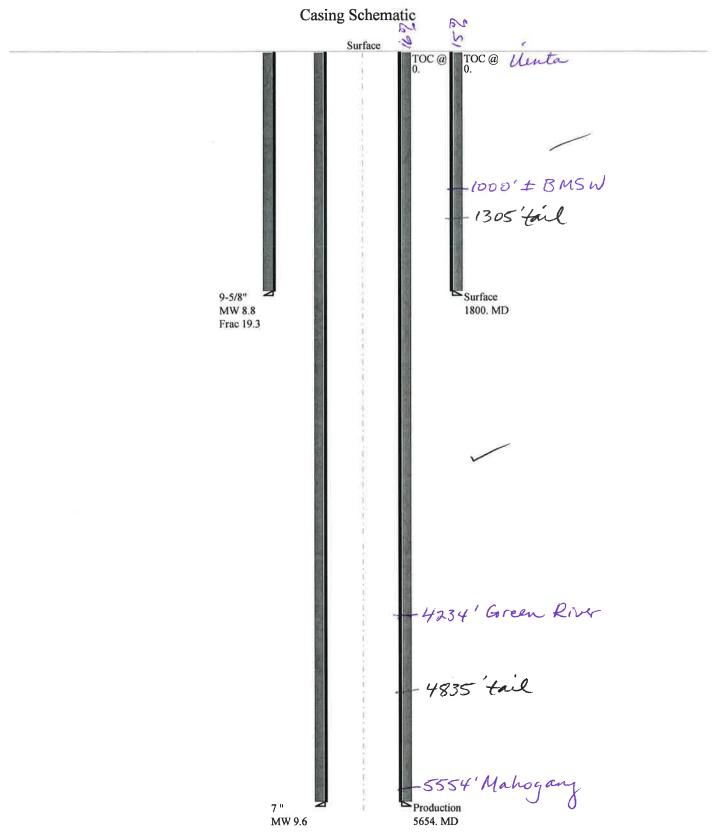
Landman

1099 18TH STREET SUITE 2300 DENVER, CO 80202 P 303.293.9100

BOPE REVIEW BILL BARRETT CORP FD 16-10-3-2 SWD 43047530040000

Well Name		BILL BARRETT	ТС	ORP FD 16-10-3	3-2	SWD 4304753	004	0000	<u> </u>		
String		COND	T	SURF	Ī	PROD	T		<u> </u>		
Casing Size(")		16.000	Ť	9.625	Ī	7.000	Ī		ī		
Setting Depth (TVD)		80	Ť	1800	Ī	5654	Ī		ī		
Previous Shoe Setting Dept	0	Ť	80	Ī	1800	Ī		ī			
Max Mud Weight (ppg)		8.8	Ť	8.8	Ī	9.6	Ī		ī		
BOPE Proposed (psi)		0	Ť	500	Ī	5000	Ī		1		
Casing Internal Yield (psi)		1000	Ť	3520	Ī	7240	Ī		ī		
Operators Max Anticipated	Pressure (psi)	2822	Ī		Ī	9.6	Ī		<u> </u>		
Calculations		COND C	4-4-2-	w.a				16.000			
Max BHP (psi)		COND St		12*Setting D)er	nth*MW-					
Max Bill (psi)			.03	2 Setting E	-	ptii 111 11 -	37		BOPE A	Adea	uate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BI	HP	-(0.12*Sett	ing	g Depth)=	27	-	NO		
MASP (Gas/Mud) (psi)		Max BI	HP	-(0.22*Sett	ing	g Depth)=	19		NO	=	
							1		1	ull E	Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth	1 - 1	Previous Sh	hoe	e Depth)=	19)	NO		
Required Casing/BOPE Tes	st Pressure=						80)	psi		
*Max Pressure Allowed @	Previous Casing	Shoe=					0		psi *	Assı	umes 1psi/ft frac gradient
a		27777.2	_					0 (0.5			
Calculations Max BHP (psi)		SURF St			.		_	9.625	"		
мах внг (ря)			.03	52*Setting D	Jep	ptn*M w =	82	24	ROPE A	Aden	uate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BI	HP	-(0.12*Sett	ins	g Depth)=	60	100	NO NO	rucy	fresh water spud mud
MASP (Gas/Mud) (psi)				-(0.22*Sett	_		42		YES	=	w/rotating head if spudder rig used
. (1			_		_	5 1 7	42	.0	1	ull E	Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth	1 -	Previous Sh	hoe	e Depth)=	44	6	NO	<u> </u>	OK
Required Casing/BOPE Tes	st Pressure=						18	100	psi		
*Max Pressure Allowed @	Previous Casing	Shoe=					80		psi *	Assı	umes 1psi/ft frac gradient
a		77.07.0									
Calculations Max BHP (psi)		PROD St		ng 52*Setting D	201	nth*MW-	_	7.000	"		
Max Bill (psi)			.03	72 Setting L	Jei	ptii W w =	28	122	BOPE A	Adea	uate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BI	HP	-(0.12*Sett	ing	g Depth)=	21	44	YES		auto 191 21ming into setting casing at 20pin
MASP (Gas/Mud) (psi)		Max BI	HP	-(0.22*Sett	ing	g Depth)=		78	YES	=	OK
			_		_		1.0		-	ull E	Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth	1 -	Previous Sh	hoe	e Depth)=	19	174	NO		OK
Required Casing/BOPE Tes	st Pressure=						50	000	psi		
*Max Pressure Allowed @ Previous Casing Shoe=				18	100	psi *	Assı	umes 1psi/ft frac gradient			
						"					
Calculations Max BHP (psi)	String .052*Setting Depth*MW=			_		<u>"</u>	_				
Max Bill (psi)			.03	72 Setting L	Jei	ptii W w =	<u> </u> _		BOPE A	Adea	uate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BI	HP	'-(0.12*Sett	ing	g Depth)=	Г		NO	1	I some ground gr
MASP (Gas/Mud) (psi)		Max BI	HP	'-(0.22*Sett	ing	g Depth)=	F		NO	=	
• .			_			- '	1-		1	ull E	Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth	1 -	Previous Sh	hoe	e Depth)=	Г		NO		i
Required Casing/BOPE Tes	st Pressure=								psi		
*Max Pressure Allowed @ Previous Casing Shoe=					F		psi *	Assı	umes 1psi/ft frac gradient		

43047530040000 FD 16-10-3-2 SWD



Well name:

43047530040000 FD 16-10-3-2 SWD

Operator:

BILL BARRETT CORP

Surface

String type:

Project ID: 43-047-53004

Location:

Collapse

UINTAH COUNTY

Minimum design factors:

Collapse: Design factor **Environment:**

H2S considered?

No 74 °F

8.800 ppg Design is based on evacuated pipe.

1.125 Surface temperature: Bottom hole temperature:

99 °F

Temperature gradient:

1.40 °F/100ft

Minimum section length:

100 ft

Burst:

Design factor

1.00

Cement top:

Surface

Burst

Max anticipated surface

No backup mud specified.

pressure: Internal gradient: Calculated BHP

Design parameters:

Mud weight:

1,584 psi 0.120 psi/ft

1,800 psi

Tension:

Neutral point:

8 Round STC: 1.80 (J)

1.70 (J) 8 Round LTC: Buttress: 1.60 (J) 1.50 (J) Premium:

1.50 (B) Body yield:

Tension is based on buoyed weight.

1.566 ft

Non-directional string.

Re subsequent strings: Next setting depth: Next mud weight:

5,654 ft 9.600 ppg

Next setting BHP: Fracture mud wt:

2,820 psi 19.250 ppg

Fracture depth: Injection pressure: 1,800 ft 1,800 psi

Run	Segment		Nominal		End	True Vert	Measured	Drift	Est.
Seq	Length (ft)	Size (in)	Weight (lbs/ft)	Grade	Finish	Depth (ft)	Depth (ft)	Diameter (in)	Cost (\$)
1	1800	9.625	36.00	J-55	ST&C	1800	1800	8.796	15646
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	823	2020	2.455	1800	3520	1.96	56.4	394	6.99 J

Prepared by: Helen Sadik-Macdonald Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: September 20,2012 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 1800 ft, a mud weight of 8.8 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:

43047530040000 FD 16-10-3-2 SWD

Operator:

BILL BARRETT CORP

String type:

Production

Design is based on evacuated pipe.

Project ID: 43-047-53004

Location:

Collapse

UINTAH COUNTY

Minimum design factors:

Collapse:

Design factor

Environment:

H2S considered? Surface temperature: No 74 °F

Bottom hole temperature:

153 °F

Temperature gradient: Minimum section length: 1,000 ft

1.40 °F/100ft

Burst: Design factor

1.00

1.125

Cement top:

Surface

Burst

Max anticipated surface

No backup mud specified.

pressure: Internal gradient: Calculated BHP

Design parameters:

Mud weight:

1,576 psi 0.220 psi/ft

9.600 ppg

2,820 psi

Tension:

8 Round STC: 8 Round LTC:

Buttress: Premium: Body yield: 1.60 (J) 1.50 (J) 1.60 (B)

1.80 (J)

1.80 (J)

Non-directional string.

Tension is based on air weight.

Neutral point:

4.835 ft

Run Seq	Segment Length	Size	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth	Measured Depth	Drift Diameter	Est. Cost
1	(ft) 5654	(in) 7	26.00	L-80	LT&C	(ft) 5654	(ft) 5654	(in) 6.151	(\$) 108665
Run Seq	Collapse Load	Collapse Strength	Collapse Design	Burst Load	Burst Strength	Burst Design	Tension Load	Tension Strength	Tension Design
1	(psi) 2820	(psi) 5410	Factor 1.919	(psi) 2820	(psi) 7240	Factor 2.57	(kips) 147	(kips) 511	Factor 3.48 J

Prepared by: Helen Sadik-Macdonald Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: September 20,2012 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 5654 ft, a mud weight of 9.6 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator BILL BARRETT CORP **Well Name** FD 16-10-3-2 SWD

API Number 43047530040000 APD No 6487 Field/Unit UNDESIGNATED

Location: 1/4,1/4 SESE **Sec** 10 **Tw** 3.0S **Rng** 2.0E 400 FSL 150 FEL

GPS Coord (UTM) 606670 4454103 Surface Owner Bill Barrett Corporation

Participants

Jake Woodland and Kary Eldredge (BBC), Don Hamilton (permit contractor), Brandon Bowthorpe and Trevor Anderson (surveyors)

Regional/Local Setting & Topography

This proposed location lays on a flat just south of an existing oilfield access road. The location is a few hundred feet north of 4500 south street which is the Highway between Randlett and Pelican Lake. Pelican lake lays approximately 4 miles to the south east. There is a fairly large drywash just to the south and east of location. There are some small drainages which must be diverted to the larger wash.

Surface Use Plan

Current Surface Use

New Road Miles Well Pad Src Const Material Surface Formation

0.01 Width 275 Length 350 Onsite ALLU

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Grease wood, spiny hopsage, little to no grass, very sparse vegetation

Soil Type and Characteristics

Clay soil

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? Y

Small drainages

Berm Required? N

RECEIVED: September 24, 2012

Erosion Sedimentation Control Required? N

Paleo Survey Run? N Paleo Potental Observed? N Cultural Survey Run? N Cultural Resources? N

Reserve Pit

Site-Specific Factors

Site Ranking

Distance to Groundwater (feet)
Distance to Surface Water (feet)
Dist. Nearest Municipal Well (ft)
Distance to Other Wells (feet)
Native Soil Type
Fluid Type
Drill Cuttings
Annual Precipitation (inches)
Affected Populations
Presence Nearby Utility Conduits

Final Score Sensitivity Level

Characteristics / Requirements

The reserve pit as proposed is 185ft by 70ft by 8ft deep and is to placed in a cut stable location. Kary Eldredge of Bill Barrett Corporation stated that a minimum 16 mil liner and felt subliner will be used and this appears to be adequate for this location.

Closed Loop Mud Required? N Liner Required? Y Liner Thickness 16 Pit Underlayment Required? Y

Other Observations / Comments

Richard Powell

Evaluator

8/15/2012

Date / Time

Application for Permit to Drill Statement of Basis

Utah Division of Oil, Gas and Mining

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
6487	43047530040000	LOCKED	WD	P	No
Operator	BILL BARRETT CORP		Surface Owner-APD	Bill Barrett C	orporation
Well Name	FD 16-10-3-2 SWD		Unit		
Field	UNDESIGNATED		Type of Work	DRILL	
Location	SESE 10 3S 2E U (UTM) 606668E 4454	400 FSL 4105N	150 FEL GPS Coord		

Geologic Statement of Basis

Bill Barrett proposes to set 80 feet of conductor and 1,800 feet of surface casing at this location. The entire surface hole will be drilled with fresh water mud. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 1,000'. A search of Division of Water Rights records shows 2 water wells within a 10,000 foot radius of the center of Section 10. The wells are 200 and 300 feet in depth with listed uses as oil exploration, irrigation and stock watering. Both wells are more than 1 mile from the proposed location. The wells probably produce water from the Uinta Formation. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed casing and cement should adequately protect usable ground water in the area.

Brad Hill 9/12/2012
APD Evaluator Date / Time

Surface Statement of Basis

This location is on fee surface owned by the applicant Bill Barrett Corporation. Kary Eldredge acted as both oil company representative and land owner representative. There were no land owner concerns.

There is a fairly large dry wash just to the south and east of location. There are some small drainages which must be diverted to the larger wash. Kary Eldredge of Bill Barrett Corporation stated that a minimum 16 mil liner and felt subliner will be used and this appears to be adequate for this location. This appears to be a good site for placement of this well.

Richard Powell 8/15/2012
Onsite Evaluator Date / Time

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Surface	Drainages adjacent to the proposed pad shall be diverted around the location.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

RECEIVED: September 24, 2012

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 7/25/2012	API NO. ASSIGNED: 43047530040000
7.1 D 1.1201.1251 1/20/2012	7

WELL NAME: FD 16-10-3-2 SWD

OPERATOR: BILL BARRETT CORP (N2165) PHONE NUMBER: 303 312-8172

CONTACT: Venessa Langmacher

PROPOSED LOCATION: SESE 10 030S 020E Permit Tech Review:

> SURFACE: 0400 FSL 0150 FEL **Engineering Review:**

> **BOTTOM:** 0400 FSL 0150 FEL Geology Review:

COUNTY: UINTAH

LATITUDE: 40.23085 **LONGITUDE:** -109.74545 **UTM SURF EASTINGS: 606668.00** NORTHINGS: 4454105.00

FIELD NAME: UNDESIGNATED

LEASE TYPE: 4 - Fee

LEASE NUMBER: Fee PROPOSED PRODUCING FORMATION(S): GREEN RIVER

SURFACE OWNER: 4 - Fee **COALBED METHANE: NO**

RECEIVED AND/OR REVIEWED:	LOCATION AND SITING:
₽ PLAT	R649-2-3.
▶ Bond: STATE - LPM4138148	Unit:
Potash	R649-3-2. General
Oil Shale 190-5	
Oil Shale 190-3	№ R649-3-3. Exception
Oil Shale 190-13	✓ Drilling Unit
Water Permit: 43-180	Board Cause No: R649-3-3
RDCC Review:	Effective Date:
✓ Fee Surface Agreement	Siting:
Intent to Commingle	R649-3-11. Directional Drill
Commingling Approved	

Comments: Presite Completed IRR SEC.:

Stipulations:

1 - Exception Location - dmason5 - Statement of Basis - bhill25 - Surface Casing - hmacdonald



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: FD 16-10-3-2 SWD **API Well Number:** 43047530040000

Lease Number: Fee

Surface Owner: FEE (PRIVATE) **Approval Date:** 9/24/2012

Issued to:

BILL BARRETT CORP, 1099 18th Street Ste 2300, Denver, CO 80202

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of R649-3-3. The expected producing formation or pool is the GREEN RIVER Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Exception Location:

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

• Any changes to the approved drilling plan - contact Dustin Doucet

- Significant plug back of the well contact Dustin Doucet
- Plug and abandonment of the well contact Dustin Doucet

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well - contact Carol Daniels OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at http://oilgas.ogm.utah.gov

- 24 hours prior to testing blowout prevention equipment contact Dan Jarvis
- 24 hours prior to cementing or testing casing contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program
 - contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well contact Dan Jarvis

Contact Information:

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

• Carol Daniels 801-538-5284 - office

• Dustin Doucet 801-538-5281 - office

801-733-0983 - after office hours

• Dan Jarvis 801-538-5338 - office

801-231-8956 - after office hours

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
 - Requests to Change Plans (Form 9) due prior to implementation
 - Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
 - Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Anneavad Dw.

Approved by:

For John Rogers Associate Director, Oil & Gas

	STATE OF UTAH		FORM 9		
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MINI		5.LEASE DESIGNATION AND SERIAL NUMBER: Fee		
SUNDR	RY NOTICES AND REPORTS C	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	pposals to drill new wells, significantly dreenter plugged wells, or to drill horizon n for such proposals.		7.UNIT or CA AGREEMENT NAME:		
1. TYPE OF WELL Water Disposal Well			8. WELL NAME and NUMBER: FD 16-10-3-2 SWD		
2. NAME OF OPERATOR: BILL BARRETT CORP			9. API NUMBER: 43047530040000		
3. ADDRESS OF OPERATOR: 1099 18th Street Ste 2300		PHONE NUMBER:)3 312-8164 Ext	9. FIELD and POOL or WILDCAT: UNDESIGNATED		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0400 FSL 0150 FEL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SESE Section: 1	STATE: UTAH				
11. CHEC	RT, OR OTHER DATA				
TYPE OF SUBMISSION					
	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF WILDCAT WELL DETERMINATION COMPLETED OPERATIONS. Clearly show all N WAS CONDUCTED A 10/3/12.		CASING REPAIR CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION TEMPORARY ABANDON WATER DISPOSAL APD EXTENSION OTHER: Depths, volumes, etc. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY October 11, 2012		
NAME (PLEASE PRINT)	PHONE NUMBE				
Brady Riley SIGNATURE N/A	303 312-8115	Permit Analyst DATE 10/4/2012			



BLM - Vernal Field Office - Notification Form

Ope	rator Bill Barrett Corporation	Rig Name,	/# <u>H&P</u>	319	
Subr	mitted By <u>JET LORENZEN</u>	Phone Num	ber <u>970</u> -	623-7078	-
Well	Name/Number FD 16-10-3-2	SWD			
Qtr/	Qtr <u>SE/SE</u> Section <u>10</u>	Township 38	<u> </u>	ange <u>2E</u>	
Leas	e Serial Number <u>FEE</u>				
API	Number <u>43-047-53004</u>				********
	<u>d Notice</u> – Spud is the initia pelow a casing string.	l spudding of	the we	ll, not drillir	ng
	Date/Time	<i>H</i>	AM 🔲	РМ	
Casin time	ng – Please report time cas s. Surface Casing Intermediate Casing Production Casing Liner Other	ing run starts	, not ce	ementing	
	Date/Time <u>10/12/2012</u>	01:00 A	AM 🔲	PM 🔽	
BOP ✓	Initial BOPE test at surface BOPE test at intermediate 30 day BOPE test Other Date/Time 10/13/2012			DIV. OF OIL	DEIVED 1 2 2012 ., gas & mining
D. a. a. a			•	PM	
кет	arks		······································		

BLM - Vernal Field Office - Notification Form

Ope	erator Bill Barrett Corporation Rig Name/# HP	319
Sub	mitted By <u>JET LORENZEN</u> Phone Number 97	0-623-7078
we	Name/Number <u>FD 16-10-3</u> -2 SWD	
Qtr,	Qtr <u>SE/SE</u> Section <u>440 /0</u> Township 3S	Range 2E
Lea	se Seriai Number <u>FEE</u>	
API	Number 43-047-53004	
<u>Spu</u> out	<u>d Notice</u> – Spud is the initial spudding of the w below a casing string.	ell, not drilling
	Date/Time AM	РМ 🔲
Casi time	ing – Please report time casing run starts, not des. Surface Casing Intermediate Casing Production Casing Liner Other	cementing
	Date/Time <u>10/15/2012</u>	PM 🔽
BOP	E Initial BOPE test at surface casing point BOPE test at intermediate casing point 30 day BOPE test Other	RECEIVED OCT 1 6 2012 DIV. OF OIL, GAS & MINING
	Date/Time AM [РМ
Rem	arks	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

		ENTITY ACTIO	N FORM	
Operator:	Bill Barrett Corporation		Operator Account Number:	N 2165
Address:	1099 18th Street, Suite 2300			
	city Denver		<u> </u>	
	state CO	zin 80202	Phone Number:	(303) 312-8115

|--|

API Number	Well	Well Name		Well Name QQ Sec					County
4304753004	FD 16-10-3-2 SWD		SESE	10	38	2E	Uintah		
Action Code	Current Entity Number	New Entity Number	S	pud Da	ie		tity Assignment Effective Date		
Α	new	18751	10/3/2012			101	241202		

API Number	Well Name			Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number		Spud Da	te		 tity Assignment Effective Date
Comments:			<u> </u>	···-		<u> </u>	

Well 3

API Number	Well Name			QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number		Spud Date		Entity Assignment Effective Date		
Comments:	<u>]</u>							

ACTION CODES:

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing entity to frew entity
- E Other (Explain in 'comments' section)

OCT 1 2012

Brady Riley	
Name (Please Print)	
Brady Riley	
Signature	
Permit Analyst	10/4/2012
Title	Date

	STATE OF UTAH			FORM	19
ı	DEPARTMENT OF NATURAL RESOU DIVISION OF OIL, GAS, AND M		3	5.LEASE DESIGNATION AND SERIAL NUMBER Fee	R:
SUNDR	Y NOTICES AND REPORTS	S ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	_
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	posals to drill new wells, significant reenter plugged wells, or to drill hori n for such proposals.	ly deep zontal l	pen existing wells below laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME:	_
1. TYPE OF WELL Water Disposal Well				8. WELL NAME and NUMBER: FD 16-10-3-2 SWD	
2. NAME OF OPERATOR: BILL BARRETT CORP	9. API NUMBER: 43047530040000				
3. ADDRESS OF OPERATOR: 1099 18th Street Ste 2300	9. FIELD and POOL or WILDCAT: UNDESIGNATED				
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0400 FSL 0150 FEL	COUNTY: UINTAH				
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 10 Township: 03.0S Range: 02.0E Meridian: U			J	STATE: UTAH	
11. CHECI	K APPROPRIATE BOXES TO INDIC	ATE N	ATURE OF NOTICE, REPOR	RT, OR OTHER DATA	
TYPE OF SUBMISSION			TYPE OF ACTION		
	ACIDIZE		ALTER CASING	CASING REPAIR	Т
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING	CHANGE WELL NAME	
Approximate date work will start:	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE	
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN		FRACTURE TREAT	NEW CONSTRUCTION	
	OPERATOR CHANGE	i	PLUG AND ABANDON	PLUG BACK	
SPUD REPORT	PRODUCTION START OR RESUME		RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION	
Date of Spud:	REPERFORATE CURRENT FORMATION		SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON	
	TUBING REPAIR		VENT OR FLARE	WATER DISPOSAL	
DRILLING REPORT Report Date:	☐ WATER SHUTOFF		SI TA STATUS EXTENSION	APD EXTENSION	
10/31/2012	WILDCAT WELL DETERMINATION		OTHER	OTHER:	
12 DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly sho	w all no	rtinent details including dates d	<u> </u>	_
	2 monthly drilling activity			Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY November 07, 2012	
NAME (PLEASE PRINT)	PHONE NUM	MBER	TITLE		_
Brady Riley	303 312-8115		Permit Analyst		_
IGNATURE DATE N/A 11/7/2012					



PI/UWI 30475	30040000		State/Provinc	e County Uintah	Field Nam Fort Du		Well Status COMPLETION	Total Depth (ftK	B) Primary Job Type 5,695.0 Drilling & Completion
ime Lo	og			10	1		100		-,
art Time 2:00		End Time 06:00	+	Category RIGUP & TEARDOWN		WO DA	VLICHT	Com	
		1	1 1 1 1 1 1 1		0/4 0/004				
· D 10	6-10-3-2	_	10/9/ State/Province	/2012 06:00 - 1	0/10/201 Field Nam			Tatal Danth (ft)	Dimon lab Tina
	30040000		State/Provinc JT	e County Uintah	Fort Du		Well Status COMPLETION	Total Depth (ftK	B) Primary Job Type 5,695.0 Drilling & Completion
ime Lo	og	Į.					<u> </u>		,
art Time 6:00	. ,	End Time 18:00	Code	Category RIGUP & TEARDOWN		BIC DO	WN DOTABY TOOLS L	Com	WELD UNOINS IN PUMP HOUSE
5.00	12.00	16.00	'	RIGUP & TEARDOWN			INERS IN PUMPS	JWER DERRICK,	WELD UNDING IN FUMP HOUSE
3:00	12.00	06:00	1	RIGUP & TEARDOWN		WO DA	Y LIGHT		
D 1	6-10-3-2	SWD	10/1	0/2012 06:00 -	10/11/20	12 06	:00		
PI/UWI		_	State/Province		Field Nam		Well Status	Total Depth (ftK	B) Primary Job Type
	30040000	l	JT	Uintah	Fort Du	chesne	COMPLETION		5,695.0 Drilling & Completion
me Lo		End Time	Code	Category				Com	
3:00	. ,	18:00	1	RIGUP & TEARDOWN		RIG DN	, MOVE, RIG ALL BUT D		F/ SMALL LOC, TO SMALL LOC
		<u>L</u> _	<u>L</u> _			MAKING	SLOW.		·
3:00	12.00	06:00	1	RIGUP & TEARDOWN		PULL W	IRES. RIG UP BACK YA	ARD. FILL MUDTAN	IKS AND WATER TANKS
D 1	6-10-3-2	SWD	10/1	1/2012 06:00 -	10/12/20	12 06	:00		
PI/UWI	20040000		State/Provinc	1 1	Field Nam		Well Status	Total Depth (ftK	
me Lo	30040000	l	JT	Uintah	Fort Du	cnesne	COMPLETION		5,695.0 Drilling & Completion
art Time		End Time	Code	Category				Com	
6:00	8.50	14:30	1	RIGUP & TEARDOWN		RIG UP	, PUT DERRICK ON FLO	OOR AND RAISE, F	RIG UP BLOCKS.
:30		16:30	14	NIPPLE UP B.O.P			UP CONDUCTOR		
5:30		18:00	20	DIRECTIONAL WORK		PICK U			
8:00	10.75	04:45	2	DRILL ACTUAL					IN 10.75 HR = 124.5 FPH) SLIDE R = 13.1 FPH. MM 8" HUNTING 7
							.5 STAGE .07 GPR FIXE		
4:45	0.50	05:15	7	LUBRICATE RIG		RIG SEI	RVICE		
5:15	0.75	06:00	2	DRILL ACTUAL		DRLG F	/ 1442 TO 1536' @ 125.3	3 FPH ROTATING	
D 1	6-10-3-2	SWD	10/12	2/2012 06:00 -	10/13/20	12 06	:00		
PI/UWI			State/Provinc	1 '	Field Nam		Well Status	Total Depth (ftK	
	30040000	l	JT	Uintah	Fort Du	chesne	COMPLETION		5,695.0 Drilling & Completion
ime Lo art Time		End Time	Code	Category				Com	
6:00		08:45	1	RIGUP & TEARDOWN				N 2.75 HR = 97.8 FI	PH) SLIDE:12' IN .25 HR 48 FPH,
						1	E: 257' IN 2.5 HR = 102.8 KED 1.5 DEGREE BEND	,	NTING 7/8 LOBE 2.5 STAGE .07
3:45	0.50	09:15	5	COND MUD & CIRC		CIRC. C	OND F/ CASING		
9:15	1.00	10:15	6	TRIPS		SHORT	TRIP TO 350'		
):15	1.00	11:15	5	COND MUD & CIRC		CIRC. L	ARGE CHUNKS OF SH	ALE COMING OVE	R SHAKER
1:15		13:00	6	TRIPS			/D 8" TOOLS		
3:00	2.75	15:45	12	RUN CASING & CEME	NT	(1.00), 4	G UP WEATHERFORD / -0 JTS 9 5/8" 36# J55 ST LIFE DOPE TO 3940 FT/	C CASING LANDE	FC (1.00) SHOE JT (44.29), FC D @ 1796' MADE UP W/
5:45	2.25	18:00	5	COND MUD & CIRC			VO. HES HAD NO TRUC		
8:00		20:00	12	RUN CASING & CEME	NT				SNLS SUPER FLUSH 20 BLS H2
5.00	2.00	20.00	12	RUN CASING & CEIVE	IN I	HSM,SWAP HES AND CEMENT 20 BLS H2O, 40 BNLS SUPER FLUSH, 20 BLS H2O, 260 SKS HLC PREMIUM 11# 3.16 YEILD W/ 5 LB SILICALITE, .125 LB POLY-E-FLAKE, .25 KWIK SEAL. TAILED W/ 235 SKS PREMIUM TYPE III 14.8# 1.33 YEILD W/ .125 LB POLY-E-FLAKE, DISPLACED W/ 135 BL H2O. BUMP PLUG FLOATS HELD. 65 BLS CEMENT TO SURFACE. GOOD RETURNS ON WHOLE JOB.			
	0.50	20:30	14	NIPPLE UP B.O.P		TEST C	ASING TO 1500# F/ 30 N	MINS.	
0:00		00:00	13	WAIT ON CEMENT		WOC.	, •		
	3.50			J.		!			
0:00 0:30 0:00		03:30	14	NIPPLE UP B.O.P		WELD (ON WELL HEAD.		

Su	ındry N	Iumbe	r: 3	1786 API We	ll Numb	er: 4	13047530040000				
B	Bill B	arret	t Co	rporation							
Time Lo	g										
Start Time	Dur (hr)	End Time	Code	Category				Com			
05:30	0.50	06:00	15	TEST B.O.P		TEST BC)P				
	6-10-3-2	SWD	10/1	3/2012 06:00 -	10/14/20	12 06:	00				
API/UWI	30040000		State/Province	ce County Uintah	Field Name Fort Due						
Time Lo			J 1	Jointair	II OIL DU	CHESHE	COMPLETION	5,095.0 Drilling & Completion			
Start Time	Dur (hr)	End Time	Code	Category				Com			
06:00	2.50	08:30	15	TEST B.O.P			EST BOP, TEST ALL RAMS AND VALVES TO 5000# F/ 10 MINS. TEST ANNULAR O 2500# F/ 10 MINS.				
08:30	0.50	09:00	14	NIPPLE UP B.O.P INSTALL WEAR BUSHING							
09:00	0.50	09:30	7	LUBRICATE RIG			RIG SERVICE				
09:30		11:30	6	TRIPS		l .	BHA, OREINTATE MWD, TI				
11:30	0.75	12:15	21	OPEN			UT SHOE TRACK AND 5' OF				
12:15		12:30	15	TEST B.O.P			ST, 196 PSI W/ 8.4 NUD = 10				
12:30	1.50	14:00	2	DRILL ACTUAL		DRLG 8 3/4" HOLE F/ 1805' TO 2188' (383' IN 1.5 HR= 255.3 FPH), SLIDE: 8' I .25 HR = 32 FPH, ROTATE: 375' IN 1.25 HR = 300 FPH MM 6 3/4" SPERRY DRILL 7/8 LOBE 3.3 STAGE .14 GPR 11.5 FIXED BEND 4.93 BTB.					
14:00	0.25	14:15	22	OPEN		REPLACE CAP GAUSKET ON #1 PUMP					
14:15	15.75	06:00	2	DRILL ACTUAL		DRLG F/ 21888' TO 4505" (2317' IN 15.75 HR = 1477.1) SLIDE:46' IN 1.25 HR = 36.8 FPH, ROTATE:2271' IN 14.5 HR = 156.7 FPH. DRLG W/ 1 PUMP WAITING ON WELDER 6 HRS.					
	6-10-3-2	SWD	10/1	4/2012 06:00 -	10/15/20	12 06:	00				
API/UWI 4304753	30040000		State/Provinc	ce County Uintah	Field Name Fort Due		Well Status COMPLETION	Total Depth (ftKB) Primary Job Type 5,695.0 Drilling & Completion			
Time Lo											
Start Time	` '	End Time		Category				Com			
06:00		08:00	2	DRILL ACTUAL		ROTATE STAGE.	: 126' IN 1 HR = 126 FPH. M 14 GPR 11.5 FIXED BEND 4	: = 68 FPH) SLIDE: 10' IN 1 HR = 10 FPH, IM 6 3/4" SPERRY DRILL 7/8 LOBE 3.3 .93 BTB.			
08:00		08:30	5	COND MUD & CIRC			JMP DRY SLUG				
08:30		12:30	6	TRIPS		TRIPF/ BIT #3					
12:30	8.00	20:30	2	DRILL ACTUAL DRLG F/ 4641' TO 5695' (1054' IN 8 HR = 131.75 FPH) SLIDE: 18' IN .5 HR = 36 FPH, ROTATE: 1036' IN 7.5 HR = 138.1 FPH.							
20:30	0.75	21:15	5	COND MUD & CIRC		CIRC. SV	WEEP,PUMP DRY SLUG				
21:15	1.25	22:30	6	TRIPS		SHORT	SHORT TRIP 20 STDS TIGHT @ 4300 TO 4500'				
22:30	0.75	23:15	5	COND MUD & CIRC		CIRC SV	CIRC SWEEP				
23:15	1.50	00:45	6	TRIPS		SHORT	SHORT TRIP 18 STDS STIL TIGHT. REAM F/ 4300' TO 4500' TIH				
00:45	0.50	01:15	5	COND MUD & CIRC		CIRC SV	CIRC SWEEP				
01:15	2.75	04:00	6	TRIPS		TOOH F/	TOOH F/ LOGS				
04:00	2.00	06:00	11	WIRELINE LOGS	/IRELINE LOGS HSM RIG UP HES AND LOG LOGERS TD 5694' QUAD COMBO F/ 5694' TO SURFACE CASING.						
FD 16	5-10-3-2	SWD	10/1	5/2012 06:00 -	10/16/20	12 06:	00				
API/UWI 4304753	30040000		State/Provinc	ce County Uintah	Field Name		Well Status COMPLETION	Total Depth (ftKB) Primary Job Type 5,695.0 Drilling & Completion			
Time Lo			-	Tomas.	1. 0.0 2 0.0			e,ecoto 2g a completion			
Start Time	Dur (hr)	End Time	Code	Category				Com			
06:00		08:15	11	WIRELINE LOGS		LOGGING					
08:15		08:45	14	NIPPLE UP B.O.P PULL WEAR BUSHING							
08:45		10:30	6	TRIPS		TIH					
10:30	0.75	11:15	5	COND MUD & CIRC		CIRC.					
11:15		15:45	6	TRIPS		LDDP AN	ID BHA				
15:45	5.75	21:30	12	RUN CASING & CEN	IENT	(1.00), 13	HSM, RIG UP WEATHERFORD AND RUN CASING. FS (1.00) SHOE JT (42.54'), FC (1.00), 133 JTS 7" 26# P110 LT&C CASING(5647.62') LANDE @ 5689' FC @ 5644.46. MADE UP W/ BESTOLIFE DOPE TO 5110 FT/LB.				
							NID E/ 04 011 10 1411// 014 E				

CIRC. COND F/ CASING. MIX LCM TO GET RETURNS

COND MUD & CIRC

21:30



	,			•							
Time Log											
Start Time	Dur (hr)	End Time	Code	Category				Com			
22:30	2.50	01:00	12	RUN CASING & CEMENT			HSM, SWAP TO HES AND CEMENT, 10 BLS H2O, 40 BLS SUPER FLUSH, 10 BLS H2O, 280 SAKS TUNED LIGHT W/5 LB SILICALITE, 10 LB SCOTCHLITE, .35 LB HALAD-344.5 DAIR, .9 LB HR-601, 5 LB BENTONITE, 1 GRANULITE. TAILED W/ 235 SKS BONDCHEM 13.5# 1.42 YEILD W/ 2& BENTONITE, 3% CACL, .75% HALAD=322, .2% FWCA, .3 SUPER CBL, .125 LB POLY-E FLAKE, 1 LB GRANULITE. DISPACED W/ 203 BL H2O W/ CLAY WEB AND ADICIDE. RETURNS STARTED SLOWING W/ 25 BLS LEFT TO DISPLACE. SLOW ED TO 3 BL/MIN. GETTING 3/4 RETURNS. DID NOT SEE ANY CEMENT TO SURFACE.				
01:00	5.00	06:00	14	NIPPLE UP B.O.P			NIPPLE DN SET SLIPS W/175K . CLEAN MUD TANKS				
FD 16-10-3-2 SWD 10/16/2012 06:00 - 10/17/2012 06:00											
API/UWI	0040000		tate/Provinc	e	County Uintah	Field Name	-	Well Status COMPLETION	Total Depth (ftKB)	Primary Job Type Drilling & Completion	
43047530040000 UT				Jointan Fort Duci		cheshe	COMPLETION	5,095.0	Drilling & Completion		
Time Log Start Time Dur (hr) End Time Code Category Com											
06:00	Dur (hr)	End Time	Code 14	Category NIPPLE UP B.O.P		CLEANIA	CLEAN MUD TANKS				
10000 10000											
FD 16	5-10-3-2	SWD	10/19	9/2012	2 06:00 - 10	0/20/20)12 06:	00			
API/UWI State/Province Co			County Field Name			Well Status	Total Depth (ftKB)	Primary Job Type			
43047530040000 UT			JT	Uintah Fort Duc			chesne	COMPLETION	5,695.0	Drilling & Completion	
Time Lo											
Start Time	Dur (hr)	End Time	Code		Category				Com		
06:00	24.00	06:00	GOP				HSM. CLEAN CELLAR. PAD WITH DIRT. TEST FOR GAS. REMOVE COVER. MAKE FINAL CUT. NU 11" 5K X 7" 5K TBG HEAD. PRES TEST VOID.				
FD 16-10-3-2 SWD 10/22/2012 06:00 - 10/23/2012 06:00											
API/UWI	001000		tate/Provinc	e	County	Field Name	-	Well Status	Total Depth (ftKB)	Primary Job Type	
43047530040000 UT Uintah Fort Duck						Fort Du	chesne	COMPLETION	5,695.0	Drilling & Completion	
Time Lo		•									
Start Time	Dur (hr)	End Time			Category				Com		
06:00	24.00	06:00	GOP	Genera	l Operations		HSM. RU SLB AND RUN GR/JB TO TAG AT 5607', FC AT 5644' (37' FILL). RUN CBL/GR/CCL WITH 1000 PSI PRES. CMT WAS GOOD FROM TD TO 2400', POOR FROM 2400' TO 2208'. TOC 2208'. NO SHORT JTS WERE FOUND.				

	FORM 9				
ı	5.LEASE DESIGNATION AND SERIAL NUMBER: Fee				
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:				
Do not use this form for procurrent bottom-hole depth, IFOR PERMIT TO DRILL form	posals to drill new wells, significantly dee reenter plugged wells, or to drill horizontal n for such proposals.	pen existing wells below laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME:		
1. TYPE OF WELL Water Disposal Well		8. WELL NAME and NUMBER: FD 16-10-3-2 SWD			
2. NAME OF OPERATOR: BILL BARRETT CORP		9. API NUMBER: 43047530040000			
3. ADDRESS OF OPERATOR: 1099 18th Street Ste 2300		ONE NUMBER: 312-8164 Ext	9. FIELD and POOL or WILDCAT: UNDESIGNATED		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0400 FSL 0150 FEL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 0 Township: 03.0S Range: 02.0E Meridian:	U	STATE: UTAH		
11. CHECI	K APPROPRIATE BOXES TO INDICATE N	IATURE OF NOTICE, REPOR	T, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
Approximate date work will start:					
SUBSEQUENT REPORT	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
Date of Work Completion:	L DEEPEN L	FRACTURE TREAT	☐ NEW CONSTRUCTION		
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK		
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION		
12/3/2012		SI TA STATUS EXTENSION	APPEALMOION		
	WILDCAT WELL DETERMINATION	OTHER	OTHER:		
	COMPLETED OPERATIONS. Clearly show all pour all pour all pour activity reports and activity reports and activity reports and activity reports and activity reports are activity reports and activity reports and activity reports are activity reports and activity reports and activity reports are activity reports and activity reports and activity reports are activity reports and activity reports and activity reports are activity reports and activity reports and activity reports are activity reports and activity reports and activity reports are activity reports and activity reports and activity reports are activity reports and activity reports and activity reports are activity reports and activity reports and activity reports are activity reports and activity reports and activity reports are activity reports and activity r		Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY December 04, 2012		
NAME (PLEASE PRINT) Brady Riley	PHONE NUMBER 303 312-8115	TITLE Permit Analyst			
SIGNATURE		DATE			
N/A		12/3/2012			

Sundry Number: 32696 API Well Number: 43047530040000



API/UWI	, 10-J-Z		State/Provinc	/2012 06:00 - 11 e County	Field Name		Well Status	Total Depth (ftKB) Primary Job Type			
	30040000		JT	Uintah	Fort Duc		COMPLETION	5,695.0 Drilling & Completion			
Time Lo				1							
Start Time 06:00	Dur (hr)	End Time 11:00	Code	Category Crew Travel		MOVE DI	G FROM 3-16D-7-20	Com			
11:00		12:00	RMOV	Rig Move		_	AND RUSU. ND NIGHT CA	D NILLBOD DILLELOOD			
12:00		16:00	PFRT					F. NO BOF. RO FLOOR. F GUNS (3104 PJO, 23 GR, 36" PENT, .38" EHD,			
16:00		19:00	RUTB	Perforating Run Tubing		6 SPF ON 60*) CORRELATED TO HES SD/DWN/DL/MSFL OH LOG DATED 10/15/1 AND SLB CBL/GR/CCL/TEMP CH LOG DATED 10/22/22. PERF UPPER GREEN RIVER 4366'-4658' WITH 120 HOLES. RD SLB. MU AND RIH W/ 7" AS1 (MILLER) PKR, 1-JT 2-7/8" L-80 TBG, PSN, 133-JTS 2-7/8"					
				-		TBG.PU 7" 5K HANGER. SET PKR AT 4313' IN 15K COMP. EOT AT 4321.71 AND PSN AT 4281'. PRES TEST ANNULUS TO 1000 PSI. HELD. DRAIN EQUIP. SDFN					
19:00	11.00	<u> </u>	LOCL	Lock Wellhead & Secure			RAVEL. WELL SHUT IN AN	D SECURE.			
FD 16	5-10-3-2	SWD	11/3/	<i>'</i> 2012 06:00 - 11	/4/2012	2 06:00					
API/UWI 4304753	30040000		State/Provinc JT	e County Uintah	Field Name Fort Duc		Well Status COMPLETION	Total Depth (ftKB) Primary Job Type 5,695.0 Drilling & Completion			
Time Lo	g	<u> </u>		·			I .	,			
Start Time	Dur (hr)	End Time	1	Category		005111	A)/EL LIONA	Com			
06:00		07:00	CTRL	Crew Travel			RAVEL. HSM				
07:00		08:00	GOP	General Operations		PSI. BLO	W DOWN TO FBT. RU SWA				
08:00	8.50	16:30	SWAB	Swab Well Down		SAMPLES	S AFTER 81 BBLS RECOVI	IG 103 BBLS. MULTICHEM CATCHING ERED ON RUN #19. HAVE MUDDY, GASSY WTR RUNS FOR LAST 3-1/2 HRS.			
16:30	0.50	17:00	GOP	General Operations		RD SWA	B LUBE. SECURE WELL FO	OR NIGHT. DRAIN LINES.			
17:00	13.00	06:00	LOCL	Lock Wellhead & Secure	1	WELL SH	UT IN AND SECURE.				
FD 16	5-10-3-2	SWD	11/5/	2012 06:00 - 11	/6/2012	06:00					
	30040000		State/Provinc JT	e County Uintah	Field Name Fort Duc		Well Status COMPLETION	Total Depth (ftKB) Primary Job Type 5,695.0 Drilling & Completion			
Time Lo Start Time	Dur (hr)	End Time	Code	Category				Com			
06:00	, ,	07:00	CTRL	Crew Travel		CREW TR	RAVEL. JSA.				
07:00	10.50	17:30	SWAB	Swab Well Down		OUT ON TBG. RIH HOT DIES POOH AN	THICK OIL AT 550'. UNABL W/ SAND CUP. UNABLE 1 SEL DOWN TBG. RIH W/ S ID USE SAND CUP. MADE	WN TO FBT. RU SWAB EQUIP. RIH AND STACK E TO GET THRU. POOH. POUR DIESEL DOWN O GET THRU. POOH. HEAT AND POUR 5 GAL INKER BARS TO GET WORKED THRU OIL. 3 SWAB RUNS. IFL 100', FFL 3500', RECOVER			
						STUCK W KINLEY C KINLEY C WAIT ON WORK S SANDLIN TO CLEA	/HEN START TO COME UP CUTTER, POUR 10 GAL DIE CUTTER. POUR 10 GAL DIE CUTTER. CUTTER AOL. F ANDLINE FOR CUTTER TO E AND CUTTER. RD SWAP N UP TBG. UNABLE TO PA	ON RUN #5. TAG FL AT 3900', WENT TO 4200'. P. WORK SANDLINE. NO SUCCESS. ORDER ESEL DOWN TBG. WORK SANDLINE. ORDER ESEL DOWN TBG AND WORK SANDLINE AS I'LL TBG WITH 20 BBLS KCL. DROP CUTTER. D FALL. CUT SANDLINE IN 65 MIN. POOH W/ B EQUIP. RELEASE PKR FROM 4321'. REV CIRC MIP DOWN TBG. SDFN.			
		06:00	LOCL	Lock Wellhead & Secure		STUCK W KINLEY C KINLEY C WAIT ON WORK SANDLIN TO CLEA	/HEN START TO COME UF CUTTER, POUR 10 GAL DIF CUTTER. POUR 10 GAL DIF CUTTER. CUTTER AOL. F ANDLINE FOR CUTTER TO E AND CUTTER. RD SWAF	P. WORK SANDLINE. NO SUCCESS. ORDER ESEL DOWN TBG. WORK SANDLINE. ORDER ESEL DOWN TBG AND WORK SANDLINE AS FILL TBG WITH 20 BBLS KCL. DROP CUTTER. DEFALL. CUT SANDLINE IN 65 MIN. POOH W/ BEQUIP. RELEASE PKR FROM 4321'. REV CIRC			
FD 16		SWD	11/6/	2012 06:00 - 11	/7/2012	STUCK W KINLEY C KINLEY C WAIT ON WORK S SANDLIN TO CLEA WELL SH	VHEN START TO COME UP CUTTER, POUR 10 GAL DIE CUTTER. POUR 10 GAL DIE CUTTER. CUTTER AOL. F ANDLINE FOR CUTTER TO E AND CUTTER. RD SWAI N UP TBG. UNABLE TO PN UT IN AND SECURE.	P. WORK SANDLINE. NO SUCCESS. ORDER ESEL DOWN TBG. WORK SANDLINE. ORDER ESEL DOWN TBG AND WORK SANDLINE AS ILL TBG WITH 20 BBLS KCL. DROP CUTTER. DEFALL. CUT SANDLINE IN 65 MIN. POOH W/ BEQUIP. RELEASE PKR FROM 4321'. REV CIRC MP DOWN TBG. SDFN.			
FD 16 API/UWI 4304753	6-10-3-2	SWD		2012 06:00 - 11		STUCK W KINLEY C KINLEY C WAIT ON WORK SA SANDLIN TO CLEA WELL SH 2 06:00	/HEN START TO COME UP CUTTER, POUR 10 GAL DIE CUTTER. POUR 10 GAL DIE CUTTER. CUTTER AOL. F ANDLINE FOR CUTTER TO E AND CUTTER. RD SWAP N UP TBG. UNABLE TO PA	P. WORK SANDLINE. NO SUCCESS. ORDER ESEL DOWN TBG. WORK SANDLINE. ORDER ESEL DOWN TBG AND WORK SANDLINE AS FILL TBG WITH 20 BBLS KCL. DROP CUTTER. DEFALL. CUT SANDLINE IN 65 MIN. POOH W/ BEQUIP. RELEASE PKR FROM 4321'. REV CIRC			
FD 16 API/UWI 4304753 Time Lo	6-10-3-2 30040000	SWD	11/6/ State/Provinc	2012 06:00 - 11 e County Uintah	/7/2012	STUCK W KINLEY C KINLEY C WAIT ON WORK SA SANDLIN TO CLEA WELL SH 2 06:00	/HEN START TO COME UP CUTTER, POUR 10 GAL DIE CUTTER. POUR 10 GAL DIE CUTTER. CUTTER AOL. F ANDLINE FOR CUTTER TO E AND CUTTER. RD SWAI N UP TBG. UNABLE TO PM UT IN AND SECURE.	P. WORK SANDLINE. NO SUCCESS. ORDER ESEL DOWN TBG. WORK SANDLINE. ORDER ESEL DOWN TBG AND WORK SANDLINE AS FILL TBG WITH 20 BBLS KCL. DROP CUTTER. Dr. FALL. CUT SANDLINE IN 65 MIN. POOH W/B EQUIP. RELEASE PKR FROM 4321'. REV CIRC MIP DOWN TBG. SDFN. Total Depth (ftKB) Primary Job Type 5,695.0 Drilling & Completion			
FD 16 API/UWI 4304753	6-10-3-2 80040000 g Dur (hr)	SWD	11/6/ State/Provinc	2012 06:00 - 11 e County	/7/2012	STUCK W KINLEY C KINLEY C WAIT ON WORK SA SANDLIN TO CLEA WELL SH 2 06:00	/HEN START TO COME UP CUTTER, POUR 10 GAL DIE CUTTER. POUR 10 GAL DIE CUTTER. CUTTER AOL. F ANDLINE FOR CUTTER TO E AND CUTTER. RD SWAI N UP TBG. UNABLE TO PM UT IN AND SECURE.	P. WORK SANDLINE. NO SUCCESS. ORDER ESEL DOWN TBG. WORK SANDLINE. ORDER ESEL DOWN TBG AND WORK SANDLINE AS FILL TBG WITH 20 BBLS KCL. DROP CUTTER. DFALL. CUT SANDLINE IN 65 MIN. POOH W/B EQUIP. RELEASE PKR FROM 4321'. REV CIRC MP DOWN TBG. SDFN.			
FD 16 API/UWI 4304753 Time Lo Start Time 06:00 07:00	5-10-3-2 30040000 9 Dur (hr) 1.00 3.00	End Time 07:00 10:00	11/6/State/Province JT Code CTRL PULT	e County Uintah Category Crew Travel Pull Tubing	/7/2012	STUCK W KINLEY C KINLEY C WAIT ON WORK SA SANDLIN TO CLEA WELL SH 2 06:00 CCREW TF SITP 50, 3 LD HANG AS1 MILL	Well Status COMPLETION COMPLE	P. WORK SANDLINE. NO SUCCESS. ORDER ESEL DOWN TBG. WORK SANDLINE. ORDER ESEL DOWN TBG AND WORK SANDLINE AS ILL TBG WITH 20 BBLS KCL. DROP CUTTER. DrALL. CUT SANDLINE IN 65 MIN. POOH W/B EQUIP. RELEASE PKR FROM 4321'. REV CIRC MP DOWN TBG. SDFN. Total Depth (ftKB)			
FD 16 API/UWI 4304753 Time Lo Start Time 06:00 07:00	5-10-3-2 30040000 g Dur (hr) 1.00 3.00	End Time 07:00 10:00 11:30	11/6/ State/Province JT Code CTRL	Category Crew Travel Pull Tubing General Operations	/7/2012	STUCK W KINLEY C KINLEY C WAIT ON WORK SA SANDLIN TO CLEA WELL SH 2 06:00 CCREW TF SITP 50, 3 LD HANG AS1 MILL	Well Status COMPLETION COMPLETION CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL COMPLETION COMP	P. WORK SANDLINE. NO SUCCESS. ORDER ESEL DOWN TBG. WORK SANDLINE. ORDER ESEL DOWN TBG AND WORK SANDLINE AS ILL TBG WITH 20 BBLS KCL. DROP CUTTER. DrALL. CUT SANDLINE IN 65 MIN. POOH W/B EQUIP. RELEASE PKR FROM 4321'. REV CIRC MP DOWN TBG. SDFN. Total Depth (ftKB)			
FD 16 API/UWI 4304753 Time Lo Start Time 06:00 07:00 10:00 11:30	5-10-3-2 30040000 g Dur (hr) 1.00 3.00	End Time 07:00 10:00	11/6/ State/Province JT Code CTRL PULT GOP SRIG	Category Crew Travel Pull Tubing General Operations Rig Up/Down	/7/2012	STUCK W KINLEY C KINLEY C WAIT ON WORK SA SANDLIN TO CLEA WELL SH 2 06:00 CCREW TF SITP 50, 3 LD HANG AS1 MILL	Well Status COMPLETION COMPLE	P. WORK SANDLINE. NO SUCCESS. ORDER ESEL DOWN TBG. WORK SANDLINE. ORDER ESEL DOWN TBG AND WORK SANDLINE AS ILL TBG WITH 20 BBLS KCL. DROP CUTTER. DrALL. CUT SANDLINE IN 65 MIN. POOH W/B EQUIP. RELEASE PKR FROM 4321'. REV CIRC MP DOWN TBG. SDFN. Total Depth (ftKB)			
FD 16 API/UWI 4304753 Time Lo Start Time 06:00 07:00 10:00 11:30	5-10-3-2 30040000 g Dur (hr) 1.00 3.00 1.50 1.00	End Time 07:00 10:00 11:30	11/6/State/Province JT Code CTRL PULT GOP	Category Crew Travel Pull Tubing General Operations	/7/2012	STUCK W KINLEY C KINLEY C WAIT ON WORK S, SANDLIN TO CLEA WELL SH 2 06:00 CREW TF SITP 50, LD HANG AS1 MILL RD FLOCE RDSU.	Well Status COMPLETION COMPLE	P. WORK SANDLINE. NO SUCCESS. ORDER ESEL DOWN TBG. WORK SANDLINE. ORDER ESEL DOWN TBG AND WORK SANDLINE AS ILL TBG WITH 20 BBLS KCL. DROP CUTTER. OF ALL. CUT SANDLINE IN 65 MIN. POOH W/B EQUIP. RELEASE PKR FROM 4321'. REV CIRC MP DOWN TBG. SDFN. Total Depth (ftKB)			
API/UWI 4304753 Time Lo Start Time	5-10-3-2 80040000 9 Dur (hr) 1.00 3.00 1.50 1.50	End Time 07:00 10:00 11:30 12:30	11/6/ State/Province JT Code CTRL PULT GOP SRIG	Category Crew Travel Pull Tubing General Operations Rig Up/Down	Field Name Fort Duc	STUCK W KINLEY C KINLEY C WAIT ON WORK S, SANDLIN TO CLEA WELL SH 2 06:00 CREW TF SITP 50, LD HANG AS1 MILL RD FLOC RDSU. ROAD RIG	Well Status COMPLETION WELL JSA. SICP 0. BLOW WELL DOW. RAND BOP. NU FRAC VALUE COMPLETION WELL DOW. COMPLETION COMPLETION RAVEL. JSA. COMPLETION RAVEL. JSA. COMPLETION RAVEL. JSA. CR. ND BOP. NU FRAC VALUE COMPLETION RAVEL. JSA. CR. ND BOP. NU FRAC VALUE COMPLETION COMPLETION	P. WORK SANDLINE. NO SUCCESS. ORDER ESEL DOWN TBG. WORK SANDLINE. ORDER ESEL DOWN TBG AND WORK SANDLINE AS ILL TBG WITH 20 BBLS KCL. DROP CUTTER. D FALL. CUT SANDLINE IN 65 MIN. POOH W/S EQUIP. RELEASE PKR FROM 4321'. REV CIMP DOWN TBG. SDFN. Total Depth (ftKB)			

Sundry Number: 32696 API Well Number: 43047530040000



API/UWI		S	tate/Provinc	e County	Field Nam	ne	Well Status	Total Depth (ftKB)	Primary Job Type	
	0040000	ι	JT	Uintah	Fort Du	ıchesne	COMPLETION	5,695	5.0 Drilling & Completion	
Time Lo						_				
Start Time	Dur (hr)	End Time	Code	Category				Com		
06:00		07:00	SMTG	Safety Meeting				L CONTRACTORS ON DA		
07:00	4.00	11:00	ACID	Acid Wash/Squeeze		TO 4666 HCL & 2 284. A\ MOL.	0'. PUMPED 595 BBL'S F 120 BIO-BALLS. FLUSH VG RATE- 44.1, MAX RA	00 PSI, HELD. OPEN WEL FRESH WATER, ISIP- 438. W/ 193 BBL'S. VERY LITTI TE- 50.5. AVG PSI- 767, N	PUMPED 358 BBL'S 15% LE BALL ACTION. ISIP-	
11:00	19.00	06:00	LOCL	Lock Wellhead & Secure		WELL S	SHUT IN & SECURE.			
FD 16	6-10-3-2	SWD	11/20	0/2012 06:00 - 1	1/21/20	012 06	:00			
API/UWI			tate/Provinc	1 1	Field Nam		Well Status	Total Depth (ftKB)	Primary Job Type	
	0040000	ι	JT	Uintah	Fort Du	ıchesne	COMPLETION	5,695	5.0 Drilling & Completion	
Time Lo	<u> </u>	I	1							
Start Time	Dur (hr)	End Time	Code	Category		ODEW.	TD A V / C I	Com		
06:00		07:00	CTRL	Crew Travel		_	TRAVEL			
07:00		07:15	SMTG	Safety Meeting		SAFET				
07:15		09:00	RMOV	Rig Move			RIG 52.8 MILES FROM 1	4-8D-36 TO LOCATION.		
09:00	1.00	10:00	SRIG	Rig Up/Down		SPOT II	N AND RUSU.			
10:00	2.00	12:00	BOPI	Install BOP's		ND FRA UNLOA	•	OVER FOR TBG. SPOT C	ATWALK AND RACKS.	
12:00	5.00	17:00	RUTB	Run Tubing				DE, XN, 6' X 2-7/8" TBG SU " COATED ID TBG. SDFN	JB, 7" PACKER, XN, 3-1/2	
17:00	13.00	06:00	LOCL	Lock Wellhead & Secure		CREW	TRAVEL. WELL SHUT IN	AND SECURE.		
FD 16	5-10-3-2	SWD	11/2	1/2012 06:00 - 1	1/22/20	012 06	:00			
API/UWI		S	tate/Provinc	e County	Field Nam	ne	Well Status	Total Depth (ftKB)	Primary Job Type	
	0040000	ι	JT	Uintah	Fort Du	ıchesne	COMPLETION	5,695	5.0 Drilling & Completion	
Time Lo	<u> </u>									
Start Time	Dur (hr)	End Time	Code	Category		ODEW	TD AV /FI	Com		
06:00		07:00	CTRL	Crew Travel		_	TRAVEL			
07:00		07:15	SMTG	Safety Meeting		SAFET				
07:15	1.75	09:00	RUTB	Run Tubing			RIH W/ 8-JTS 3-1/2" TBG			
09:00	1.00	10:00	GOP	General Operations				CED TREATED WTR FOR		
10:00	0.50	10:30	GOP	General Operations		SET 7" MILLER HORNET PKR AT 4325', X NIPPLE AT 4317', XN NIPPLE AT 4331'. EOT AT 4332'.				
10:30	0.50	11:00	WTST	Well Test		PRES T	EST CSG TO 1000 PSI.	RD D&M. NU WH.		
11:00	1.00	12:00	SRIG	Rig Up/Down		RDSU, LOAD EQUIP.				
			D1401/	"		ROAD RIG AND YARD.				
12:00	1.00	13:00	RMOV	Rig Move		IROADE	RIG AND YARD.			

www.peloton.com Page 2/2 Report Printed: 12/3/2012

		DEPAR		ATE C			URCES	3			(hi	ENDED	chang	jes)			RM 8
		DIVISION	ON OF	OIL,	GAS	AND I	MININ	G			1	EASE DE EE	SIGNA	TION A	ND SE	RIAL NUME	ER:
WELL CO	OMPLE	TION	OR F	ECO	MPL	ETIC	N RE	POR	TANE	LOG	6. 1	INDIAN,	ALLO1	TEE O	RTRIB	E NAME	
1a. TYPE OF WELL:		OIL .	l e	AS L	j	DRY		ОТНЕ	R IN	jection	7. U	NIT or CA	AGRE	EMEN	FNAMI	=	
b. TYPE OF WORK: NEW WELL WELL LATS:	· 🗇 :		1 - 2	RE- NTRY	1	DIFF. RESVR.		OTHE	R	J		FD 16)	
2. NAME OF OPERATOR: Bill Barrett Cor		<u> </u>										РІ NUMB 43047		04			
3. ADDRESS OF OPERATO	R:	city Dei	nver		STATE	co	ZIP 802	202		NUMBER: 3) 293-9100		UNDE				T	
4. LOCATION OF WELL (FO AT SURFACE: 400	OOTAGES)					-			<u>k</u>		4			TION, T		HIP, RANG 2E S	
AT TOP PRODUCING IN				71 FS	L, 152	FEL	*. *				12.	COUNTY			1;	3. STATE	
AT TOTAL DEPTH: 3		T.D. REAC		16. DATE	COMBI	ETEC»						Jintah		NS (DE	RKB.	RT, GL):	UTAH
14. DATE SPUDDED: 10/3/2012		6/2012		11/2	2/2012	<u> </u>		ABANDONE		READY TO PRODU		4	831	GR			
	5,695 5,694	1	19. PLUG	BACK T.D		5,689 5,688		20. IF M	ULTIPLE CO	OMPLETIONS, HOW	MANY? *	21. DEF	TH BF UG SE		MD TVD		
	NEUTED MEGALI	ANICAL LO	GS RUN (S	Submit cop	y of each)	400	=	23.	LOOPERO	NO	[7]	yes [7	/Subr	nit analysis)	
CBL/GR/CCL/TE	MP, B	C5 A)	S 10/	מפס	40	ر ر ل 	767		WAS DST	L CORED? RUN? NAL SURVEY?	NO NO	V	YES [YES [(Subn	nit report) nit copy)	
24. CASING AND LINER R	ECORD (Repo	rt all strings	s set in w	∌U)											_		
HOLE SIZE SIZ	E/GRADE	WEIGHT	(#/ft.)	TOP (MD)	вотто	M (MD)		EMENTER PTH	CEMENT TYPE & NO. OF SACKS		RRY E (BBL)	CE	MENT T	OP **	AMOUNT	PULLED
26 16	Con	65	#	C)	8	0 -	8	0					0			
12 1/4 9 5/8		36	··	. 0			796		796	495		02	-	0	~	45	000
8 3/4 6 1/8	3 L80	26	#	0)	5,0	689	5,6	889	515	5	25	-	236		15	000
											-		\vdash			 	
													┼			-	
25. TUBING RECORD						-		<u> </u>			1		.L				
	PTH SET (MC) PACK	ER SET (I	AD)	SIZE		DEPTH	SET (MD)	PACKE	R SET (MD)	SIZE	1	DEPTH	SET (AD)	PACKER:	SET (MD)
4 1/2	4,307	_	4,300														
26. PRODUCING INTERVA	LS								27. PERFO	RATION RECORD							
FORMATION NAME	TO	P (MD)	BOTTO	M (MD)	TOP	(TVD)	BOTTO	M (TVD)	INTERVA	L (Top/Bot - MD)	SIZE	NO. HO				ATION STA	TUS
(A) Green River	4	,365	4,6	357			<u> </u>		4,365	4,657	.38	14	-		Z	Squeezed	<u> </u>
(B)												ļ	-+	Open	<u> </u>	Squeezed	브
(C)							ļ				<u> </u>	<u> </u>	_	Open	<u></u>	Squeezed	<u>니</u>
(D)			<u> </u>		<u> </u>						L			Open		Squeezed	Ц
28. ACID, FRACTURE, TR	ATMENT, CE	MENT SQU	EEZE, ET	C.													
DEPTH INTER\	'AL									YPE OF MATERIAL				,			
4368'-4660'		Gree	en Riv	er: 166	304 ga	als 15	% HCL	_ w/ 12) Bioba	lls; 595 bbls	slurry			····			
																	
29. ENCLOSED ATTACHM		LOGS					GEOLÓG	IC REPOR	· 📮	DST REPORT	Z DIREC	CTIONAL	SURVE	-		ectives:	ب
SUNDRY NOT	ICE FOR PLU	GGING AND	CEMENT	VERIFIC/	ATION	<u> </u>	CORE AN	ialysis		OTHER:		_PI	=_		i.	-D-	
(5/2000)						(CC	וטאודאס	ED ON E	ACK)					15		13	

31. INITIAL PRO	DUCTION					INTE	ERVAL A (As sho	vm in item #26)						
DATE FIRST PRO	ODUCED:		TEST DA	TE:		HOURS TESTED);	TEST PRODUCTIC RATES: →	N OIL-	BBL:	GAS MCF:	WATER -	- 8BL:	PROD. METHOD:
CHOKE SIZE:	TBG, PRES	s.	CSG. PRI	ESS. API G	RAVITY	BTU-GAS	GAS/OIL RATIO	24 HR PRODUCTION PATES: →	ON OIL-	BBL:	GAS — MCF:	WATER-	-BBL:	INTERVAL STATUS:
						INTI	ERVAL B (As sho	wn in item #26)		· · · · · · · · · · · · · · · · · · ·				
DATE FIRST PRO	ODUCED:		TEST DA	TE:		HOURS TESTED):	TEST PRODUCTION RATES: →	N OIL-	BBL:	GAS-MCF:	WATER-	-BBL:	PROD, METHOD:
CHOKE SIZE:	TBG, PRES	S.	CSG. PR	ESS. API GI	RAVITY	BTU-GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	ON OIL-	BBL:	GAS MCF:	WATER -	-88L:	INTERVAL STATUS:
	!			1		INT	ERVAL C (As sho	vn in item #26)		·····	<u> </u>			
DATE FIRST PRO	ODUCED:		TEST DA	TE:		HOURS TESTED);	TEST PRODUCTION OIL - BBL: GAS - MCI RATES: →		GAS MCF:	WATER-	- 88L:	PROD. METHOD:	
CHOKE SIZE:	TBG. PRES	S.	CSG. PRI	ESS. API GI	YTIVAS	BTU-GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	ON OIL-	BBL;	GAS MCF:	WATER -	- 88L:	INTERVAL STATUS:
	<u> </u>					INTI	ERVAL D (As sho	wn in Item #26)			<u> </u>			
DATE FIRST PRO	ODUCED:		TEST DA	TE:		HOURS TESTED		TEST PRODUCTION RATES: →	N OIL-	BBL:	GAS MCF:	WATER-	-BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRES	S.	CSG. PRI	ESS. API GI	YTIVAS	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	ON OIL-	BBL:	GAS - MCF:	WATER-	-BBL:	INTERVAL STATUS:
32. DISPOSITIO	N OF GAS (Sold, l	Jsed for F	uel, Vented, El	G.)		<u> </u>							
									las ron	MATION (I o	MADKEDO.			
33. SUMMARY			-				to the front officer dis	offs followed	34. FUR	MATION (LO	og) MARKERS:			
Show all importer tested, cushion u	nt zones of p sed, time too	orosity I open	and conte , flowing a	ints thereof; Co and shut-in press	ures and I	is and all drill-stem recoveries.	i tests, including de	pm interval					·	
Formatio	n		Top MD)	Bottom (MD)		Descript	ilons, Contents, etc	.			Name		(1	Top Measured Depth)
										n River ogany				4,222 5,681 5,695
35. ADDITIONAL	L REMARKS	(inclu	ide pluggi	ng procedure)				· · · · · · · · · · · · · · · · · · ·	•					
TOC calcu	ulated C	BL.	Cond.	cemente				never went		s; well v	will be con	erted t	o SW	'D well
36. I hereby cer	tify that the	forego	ing and a	ttached inform	ation is c	omplete and corre	ect as determined	from all available r	ecords.					
	X		D#	_)		D	rmit A.	anticot				
NAME (PLEASI	E PRINT	rad	y Rile	′ , 	1.	/ \ 	,	TITLE PE	rmit Ar	iaiyst				
SIGNATURE_	<u> </u>	<u>Y</u>	UU	\mathcal{U}_{λ}	15	ille	1	DATE 1/1	4/201	3				
drillingrecon	leting or p g horizont apleting to	luggi al lat a di	ng a ne erals fro fferent p	w well om an existing producing fo	ıg well l mation	•	significantly of drilling hydro	oreviously plugg leepening an ex carbon explorat	isting w	ell bore b s, such a	elow the prev	rious bott es and st	om-ho ratigraj	le depth phic tests
* ITEM 20: Sh	now the n	umbe	er of con	pletions if p	roducti	on is measure	d separately f	om two or more	formati	ions.				
** ITEM 24: Ce	ement Tor	-St	now how	reported to	o(s) of c	ement were de	termined (circ	ulated (CIR), cal	culated ((CAL), cei	ment bond log	(CBL), to	empera	ature survey (TS))

Phone: 801-538-5340

801-359-3940

Fax:

Send to:

Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210 Box 145801 Salt Lake City, Utah 84114-5801

Bill Barrett Corp

Uintah County, UT (NAD 1927) Sec. 10-T3S-R2E FD 16-10-3-2 SWD

Plan A

Design: MWD Survey

Sperry Drilling ServicesFinal Survey Report

04 December, 2012

Well Coordinates: 695,849.82 N, 2,489,839.90 E (40° 13' 50.19" N, 109° 44' 43.70" W)

Ground Level: 4,829.00 ft

Local Coordinate Origin:

Centered on Well FD 16-10-3-2 SWD

KB @ 4853.00ft (H&P 319)

Viewing Datum: TVDs to System:

N

North Reference:

True

Unit System:

API - US Survey Feet - Custom

Geodetic Scale Factor Applied Version: 2003.16 Build: 43I

HALLIBURTON

Design Report for FD 16-10-3-2 SWD - MWD Survey

Method Inclination City							_	
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Depth			Depth	+N/-S		Section	Rate
Text Name	7.9					7 · 17		
First NWD Survey								
187.00 0.21 227.35 187.00 -0.40 -0.75 0.52 0.41 249.00 0.44 180.95 0.44 0.071 -0.83 0.85 0.54 0.54 0.40 0.071 -0.83 0.85 0.54 0.54 0.54 0.00 0.44 222.28 339.99 -1.32 -1.07 1.49 0.34 0.34 0.200 0.68 203.70 431.99 -2.08 -1.32 -1.07 1.49 0.34 0.34 0.34 0.34 0.34 0.34 0.34 0.34			244.03	124.00	-0.21	-0.44	0.29	0.30
249.00 0.44 189.95 249.00 -0.71 -0.83 0.85 0.65 340.00 0.44 189.95 249.00 -0.71 -1.02 -1.07 1.49 0.34 432.00 0.68 222.28 389.99 -1.32 -1.07 1.49 0.34 432.00 0.68 222.28 389.99 -1.32 -1.07 1.49 0.34 432.00 0.68 222.99 2.02 -1.85 3.16 0.48 614.00 0.49 138.70 613.98 -3.65 -1.30 3.73 3.16 0.48 614.00 0.49 138.70 613.98 -3.65 -1.30 3.73 0.23 708.00 0.58 170.91 707.98 -4.33 -0.96 4.43 0.33 693.00 0.44 124.15 802.86 -5.01 -0.58 6.04 0.45 897.00 0.65 146.12 809.87 -6.02 0.62 5.83 0.65 991.00 0.37 77.90 909.97 -6.02 0.62 5.83 0.65 991.00 0.37 77.90 909.97 -6.02 0.62 5.83 0.65 1.085.00 0.48 61.96 1.094.97 -5.97 13.1 5.86 0.46 1.170.00 0.36 107.94 1.179.86 -5.08 1.99 5.64 0.18 1.274.00 0.34 178.56 1.273.96 -6.45 2.28 5.96 0.43 1.388.00 0.54 183.39 1.387.98 -7.17 2.20 8.07 7.00 0.22 1.482.00 0.60 176.40 1.401.95 -8.11 2.25 7.80 0.08 1.587.00 0.32 138.91 1.559.95 -8.80 2.44 6.25 0.43 1.861.00 0.21 192.20 1.60.05 -9.17 2.77 2.77 8.59 0.27 1.731.00 0.31 197.35 1.730.95 -9.92 2.48 8.95 0.31 1.840.00 0.63 181.22 1.839.95 -1.040 2.38 8.98 3 0.31 1.840.00 0.63 181.22 1.839.95 -1.040 2.38 8.98 10.77 0.11 2.02 8.07 7.01 1.934.00 0.63 180.76 1.933.94 -11.25 2.38 10.77 0.11 2.02 8.07 7.01 1.22 8.23 10.77 0.11 2.02 8.00 0.67 192.54 2.027 44 1.232 2.23 10.77 0.11 2.02 8.00 0.67 192.54 2.027 44 1.232 2.23 10.77 0.11 2.02 8.00 0.67 192.54 2.027 44 1.232 2.23 10.77 0.11 2.028 8.00 0.47 192.54 2.027 44 1.232 2.23 10.77 0.11 2.028 8.00 0.47 192.54 2.027 44 1.232 2.23 10.77 0.11 2.028 8.00 0.47 192.54 2.027 44 1.232 2.23 10.77 0.11 2.028 8.00 0.47 192.54 2.027 44 1.232 2.23 10.77 0.11 2.028 8.00 0.47 192.54 2.028 2.14.86 1.86 1.405 0.31 1.97 0.35 1.90 0.27 1.93 0.00 0.53 180.76 1.933.94 1.15.57 0.30 1.95 1.95 1.95 1.95 1.95 1.95 1.95 1.95		-	007.05	407.00	0.40	0.75	0.52	0.41
340.00 0.44 222.28 338.99 -1.32 -1.07 1.49 0.34 432.00 0.08 203.70 431.99 -2.08 -1.53 2.32 0.32 632.00 0.45 194.48 522.99 -2.92 1.95 1.95 3.16 0.48 632.00 0.45 194.48 522.99 -2.92 1.95 1.95 1.95 1.95 1.95 1.95 1.95 1.95								
432.00 0.88 203.70 431.99 -2.08 -1.53 2.32 0.32 623.00 0.45 194.48 622.99 -2.02 -1.95 3.16 0.48 614.00 0.49 138.70 613.98 -3.55 -1.330 3.73 0.23 708.00 0.58 170.91 707.98 -4.33 -0.95 4.43 0.33 803.00 0.44 124.15 802.98 -5.01 -0.55 5.04 0.45 897.00 0.65 145.12 896.97 -5.65 0.02 6.56 0.30 991.00 0.37 77.90 890.97 -6.02 0.82 5.83 0.55 1.085.00 0.46 91.96 17.94 1.179.96 -6.00 1.99 5.94 1.179.00 0.36 107.94 1.179.96 -6.00 1.99 5.94 0.18 1.179.00 0.36 107.94 1.179.96 -6.00 1.99 5.94 0.18 1.274.00 0.34 178.55 1.273.96 -6.45 2.28 5.96 0.43 1.386.00 0.54 183.39 1.387.96 -7.17 2.20 6.57 0.02 1.38 1.387.00 1.865.00 0.00 1.78.40 1.461.95 -8.11 2.25 7.60 0.06 1.867.00 0.31 197.35 1.730.95 -8.80 2.44 8.25 0.43 1.861.00 0.21 139.20 1.859.95 -9.917 2.57 8.89 0.27 7.731.00 0.31 197.35 1.730.95 -9.52 2.48 8.95 0.13 1.840.00 0.63 1812.2 1.839.95 -10.40 2.38 9.83 0.31 1.384.00 0.68 182.24 2.26 2.27 9.87 0.13 1.384.00 0.68 182.24 2.26 2.27 9.4 11.35 0.39 1.387.96 1.13.39 1.384.00 0.63 181.22 1.839.95 -10.40 2.38 9.83 0.31 1.384.00 0.68 182.24 2.26 2.27 9.4 11.35 0.00 0.00 177 0.11 1.20 0.00 0.00 182.4 2.122.93 -13.84 1.1.35 2.38 10.77 0.11 2.22 2.23 11.76 0.20 2.2123.00 0.96 192.24 2.122.93 -13.84 1.1.35 2.38 10.77 0.11 2.222 2.23 11.76 0.20 2.2123.00 0.96 192.24 2.122.93 -13.84 1.95 13.10 0.31 2.24 2.265 2.269 2.310.92 -15.11 1.13 14.89 0.47 2.499.00 0.24 135.04 2.296.92 -15.542 1.16 14.99 1.21 2.499.00 0.24 135.04 2.296.92 -15.542 1.16 14.99 1.21 2.499.00 0.24 135.04 2.296.92 -15.542 1.16 14.99 1.21 2.499.00 0.24 135.04 2.296.90 -17.83 1.95 1.95 0.19 0.19 1.95 0.19 1.95 0.19 1.95 0.19 1.95 0.19 1.95 0.19 1.95 0.19 1.95 0.19 1.95 0.19 1.95 0.19 1.95 0.19 1.95 0.19 1.95 0.19 1.9								
623.00 0.45 104.48 522.99 -2.02 -1.05 3.16 0.48 614.00 0.49 138.70 613.98 -3.068 -1.30 3.73 0.28 708.00 0.68 170.91 707.96 -4.33 -0.96 4.43 0.28 803.00 0.44 124.15 802.98 -5.01 -0.58 6.04 0.45 897.00 0.65 145.12 890.98 -5.01 -0.58 6.04 0.45 897.00 0.65 145.12 890.97 -5.00 0.02 5.66 0.30 991.00 0.37 77.90 990.97 -6.02 0.02 5.68 0.05 1.085.00 0.46 61.99 1.1084.97 -5.97 1.31 5.68 0.16 1.179.00 0.36 107.94 1.179.86 -6.08 1.99 5.84 0.18 1.274.00 0.34 178.58 1.273.96 -6.45 2.28 5.98 0.43 1.386.00 0.54 183.39 1.387.98 -7.17 2.28 6.67 0.22 1.482.00 0.00 178.40 1.461.95 -8.11 2.25 7.60 0.08 1.99 5.84 1.85 1.85 1.85 1.85 1.85 1.85 1.85 1.85	340.00							
614,00								
706.00								
803.00								
897.00								
991.00	803.00	0.44	124.15	802.98				
1,085.00								
1,179.00								
1,274.00 0.34 178.65 1,273.96 6.4.45 2.28 5.98 0.43 1,368.00 0.54 183.39 1,367.98 7.17 2.26 6.67 0.22 1,462.00 0.60 178.40 1,461.96 -8.11 2.25 7.60 0.08 1,557.00 0.32 138.91 1,556.95 -8.80 2.44 8.25 0.43 1,651.00 0.21 192.20 1,650.95 -9.17 2.57 8.69 0.27 1,731.00 0.31 197.35 1,730.95 -9.52 2.48 8.95 0.13 1,840.00 0.63 181.22 1,339.95 -10.40 2.38 9.83 0.31 1,934.00 0.63 180.76 1,933.94 -11.35 2.36 10.77 0.11 2,028.00 0.67 192.54 2,027.94 -12.32 2.23 11.75 0.20 2,123.00 0.96 192.24 2,122.93 -13.64 1.95 13.10 0.31 2,217.00 0.24 222.65 2,216.92 -14.56 1.66 14.05 0.81 2,311.00 0.68 222.80 2,310.92 -15.11 1.13 14.69 0.47 2,405.00 0.51 76.72 2,404.92 -15.47 1.16 14.99 1.21 2,499.00 0.24 135.04 2,489.91 -15.47 1.71 1.94 0.46 2,594.00 0.26 152.02 2,593.91 -15.47 1.71 1.94 0.46 2,594.00 0.26 152.02 2,593.91 -16.84 1.90 15.77 0.39 2,782.00 0.48 207.89 2,781.91 -16.34 1.90 15.77 0.39 2,782.00 0.48 207.89 2,781.91 -17.90 1.09 17.44 0.23 2,971.00 0.23 287.68 2,970.90 -18.34 0.52 17.95 0.73 3,065.00 0.12 154.14 3,064.90 -18.37 0.48 18.01 0.35 3,159.00 0.46 188.77 3,347.89 -19.90 0.49 19.55 0.14 3,442.00 0.46 188.77 3,347.89 -19.90 0.49 19.55 0.14 3,536.00 0.67 124.37 3,315.89 -19.20 0.53 3,725.00 0.70 210.39 2,878.90 -17.90 0.99 19.55 0.14 3,536.00 0.45 182.46 3,262.90 -19.20 0.63 18.80 0.26 3,348.00 0.46 188.77 3,347.89 -19.90 0.49 19.55 0.14 3,442.00 0.46 188.35 3,535.89 -21.53 0.27 21.16 0.22 3,631.00 0.55 248.67 3,303.88 -22.22 -0.21 21.92 0.83 3,725.00 0.70 21.31 3,912.87 2.386 -22.51 0.89 2.33 0.18 3,819.00 0.57 24.30 3,318.88 -23.02 -1.45 2.29 2.00 4,196.00 0.43 155.44 4,195.86 -22.55 -25.52 2.531 1.01 4,196.00 0.48 195.38 4,384.84 -28.86 -20.56 2.86 2.86 0.66 4,080.00 0.77 247.70 4,007.87 -24.40 -2.50 24.47 0.60 4,102.00 0.98 171.77 4,101.88 -25.25 -25.52 2.531 1.01	•							
1,388.00				-				
1,462.00	1,274.00	0.34	178.56	1,273.96	-6.45			
1,557.00 0.32 138.91 1,555.95 -8.80 2.44 8.25 0.43 1,661.00 0.21 192.20 1,650.95 -9.17 2.57 8.59 0.27 1,731.00 0.31 197.35 1,730.95 -9.52 2.48 8.95 0.13 1,840.00 0.63 181.22 1,839.95 -10.40 2.38 9.83 0.31 1,934.00 0.53 180.76 1,933.94 -11.35 2.36 10.77 0.11 2,028.00 0.67 192.64 2,027.94 -12.32 2.23 11.76 0.20 2,123.00 0.96 192.24 2,122.93 -13.64 1.95 13.10 0.31 2,217.00 0.24 222.65 2,216.92 -14.56 1.66 14.05 0.81 2,311.00 0.68 222.90 2,310.92 -15.11 1.13 14.69 0.47 2,405.00 0.51 76.72 2,404.92 -15.42 1.16 14.99 1.21 2,499.00 0.24 135.04 2,498.01 -15.47 1.71 14.94 0.46 2,594.00 0.26 152.02 2,593.91 -15.80 1.95 15.22 0.08 2,888.00 0.47 202.61 2,687.91 -16.34 1.90 15.77 0.39 2,782.00 0.48 207.89 2,781.91 -17.05 1.57 18.52 0.05 2,877.00 0.24 161.63 3,158.90 -18.84 0.59 18.26 0.13 3,253.00 0.45 182.46 3,252.90 -18.84 0.59 18.26 0.13 3,253.00 0.45 182.46 3,252.90 -18.84 0.59 18.26 0.13 3,253.00 0.45 182.46 3,252.90 -18.84 0.59 18.26 0.13 3,253.00 0.46 189.77 3,347.89 -19.90 -18.84 0.59 18.26 0.13 3,253.00 0.46 189.77 3,347.89 -19.90 -18.84 0.59 18.26 0.13 3,253.00 0.46 189.87 3,347.89 -19.90 -18.84 0.59 18.26 0.13 3,253.00 0.46 189.87 3,347.89 -19.90 -18.84 0.59 18.26 0.13 3,253.00 0.46 189.87 3,347.89 -19.90 -18.84 0.59 18.26 0.13 3,253.00 0.46 189.87 3,347.89 -19.90 -18.84 0.59 18.26 0.13 3,253.00 0.46 189.87 3,347.89 -19.90 -18.84 0.59 18.26 0.13 3,253.00 0.46 189.87 3,347.89 -19.90 -18.64 0.59 18.26 0.13 3,253.00 0.46 189.87 3,347.89 -19.90 0.90 -18.40 0.59 18.26 0.13 3,253.00 0.46 189.87 3,347.89 -19.90 0.90 0.90 0.20 0.20 0.20 0.20 0.20	1,368.00	0.54	183.39	1,367.96	-7.17			
1,651,00 0.21 192.20 1,650.95 -9.17 2.57 8.69 0.27 1,731,00 0.31 197.35 1,730.95 9.52 2.48 8.95 0.13 1,840.00 0.63 181.22 1,839.95 1.0.40 2.38 9.83 0.31 1,934.00 0.53 180.76 1,933.94 -11.35 2.36 10.77 0.11 2,028.00 0.67 192.54 2,027.94 12.32 2.23 11.75 0.20 2,123.00 0.98 192.24 2,122.93 13.84 1.95 13.10 0.31 2,217.00 0.24 222.65 2,216.92 14.56 1.66 14.05 0.81 2,311.00 0.68 222.90 2,310.92 -15.11 1.13 14.69 0.47 2,405.00 0.51 76.72 2,404.92 -15.41 1.13 14.69 0.47 2,405.00 0.51 76.72 2,404.92 -15.42 1.16 14.99 1.21 2,499.00 0.24 135.04 2,498.91 -16.47 1.71 14.94 0.46 2,594.00 0.26 152.02 2,595.91 -15.80 1.95 15.22 0.08 2,888.00 0.47 202.61 2,887.91 -16.80 1.95 15.22 0.08 2,888.00 0.47 202.61 2,887.91 -16.80 1.95 15.22 0.08 2,888.00 0.47 202.61 2,887.91 -16.80 1.95 15.22 0.08 2,877.00 0.70 210.39 2,876.90 -17.90 1.09 17.44 0.23 2,971.00 0.23 267.68 2,970.90 18.34 0.62 17.95 0.73 3,065.00 0.12 154.14 3,064.90 -18.37 0.48 18.01 0.35 3,159.00 0.24 181.63 3,158.90 -18.84 0.59 18.26 0.13 3,253.00 0.45 182.46 3,252.90 -19.20 0.63 18.80 0.28 3,348.00 0.46 188.77 3,347.89 -19.93 0.49 19.55 0.14 3,536.00 0.46 188.77 3,347.89 -19.93 0.49 19.55 0.14 3,536.00 0.46 188.37 3,441.89 -20.65 0.36 20.28 0.14 3,536.00 0.47 124.70 4,007.87 -24.40 -2.50 2.33 0.18 3,819.00 0.50 0.51 24.86 7 3,838.89 -21.53 0.27 21.16 0.22 3,631.00 0.53 18.80 0.50 0.57 218.23 3,818.88 -22.22 -0.21 21.92 0.63 3,119.00 0.50 0.57 218.23 3,818.88 -22.22 -0.21 21.92 0.63 3,119.00 0.57 218.23 3,818.88 -22.22 -0.21 21.92 0.63 3,119.00 0.57 218.23 3,818.88 -22.22 -0.21 21.92 0.63 3,119.00 0.57 218.23 3,818.88 -22.22 -0.21 21.92 0.63 3,119.00 0.57 218.23 3,818.88 -22.22 -0.21 21.92 0.63 3,119.00 0.57 218.23 3,818.88 -22.22 -0.21 21.92 0.63 3,119.00 0.57 218.23 3,818.88 -22.22 -0.21 21.92 0.63 3,119.00 0.57 218.23 3,818.88 -22.22 -0.21 21.92 0.63 3,119.00 0.57 218.23 3,818.88 -22.22 -0.21 21.92 0.63 3,119.00 0.57 218.23 3,818.88 -22.25 2.25 2.25 2.25 2.25 2.25 2.25 2.	1,462.00	0.60	178.40	1,461.95				
1,731,00 0.31 197.35 1,730.95 9.52 2.48 8.95 0.13 1,840.00 0.63 181.22 1,839.95 -10.40 2.38 9.83 0.31 1,934.00 0.53 180.76 1,933.94 -11.35 2.36 10.77 0.11 2,028.00 0.67 192.64 2,027.94 -12.32 2.23 11.75 0.20 2,123.00 0.98 192.24 2,122.93 -13.64 1.95 13.10 0.31 2,217.00 0.24 222.85 2,216.92 -14.56 1.66 14.05 0.81 2,311.00 0.68 222.90 2,310.92 -15.11 1.13 14.69 0.47 2,405.00 0.51 76.72 2,404.92 -15.42 1.16 14.99 1.21 2,499.00 0.24 135.04 2,498.91 -15.82 1.16 14.99 1.21 2,499.00 0.26 152.02 2,599.91 -15.80 1.95 15.22 0.08 2,686.00 0.47 202.61 2,887.91 -16.34 1.90 15.77 0.39 2,782.00 0.48 207.89 2,781.91 -17.05 1.57 16.52 0.05 2,877.00 0.70 210.39 2,878.90 -17.90 1.09 17.44 0.23 2,971.00 0.23 287.68 2,870.90 -18.34 0.62 17.95 0.73 3,065.00 0.12 154.14 3,064.90 -18.37 0.48 18.01 0.36 3,159.00 0.24 181.63 3,158.90 -18.64 0.59 18.26 0.13 3,263.00 0.45 182.46 3,262.90 -19.20 0.63 18.80 0.26 3,348.00 0.46 198.77 3,347.89 -19.93 0.49 19.55 0.14 3,536.00 0.84 188.35 3,535.89 -21.53 0.27 21.16 0.22 3,631.00 0.57 218.23 3,818.88 -22.21 -0.21 1.92 0.83 3,725.00 0.70 213.17 3,912.87 -24.40 -2.50 24.47 0.60 4,102.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.48 4,280.00 0.43 155.14 4,195.86 -2.25 28.78 -1.97 2,781.00 0.20 0.83 188.00 0.64 4,289.00 0.77 27.31 0.48 4,385.00 0.88 195.38 4,384.84 -28.86 -2.05 28.78 0.48	1,557.00	0.32	138.91	•				
1,840.00 0.63 181.22 1,839.95 -10.40 2.38 9.83 0.31 1,934.00 0.53 180.76 1,933.94 -11.35 2.36 10.77 0.11 2,028.00 0.67 192.54 2,027.94 -12.32 2.23 11.75 0.20 2,123.00 0.96 192.24 2,122.93 -13.64 1.95 13.10 0.31 2,217.00 0.24 222.65 2,216.92 -14.56 1.66 14.05 0.81 2,311.00 0.68 222.90 2,310.92 -15.11 1.13 14.69 0.47 2,405.00 0.51 76.72 2,404.92 -15.42 1.16 14.99 1.21 2,499.00 0.24 135.04 2,498.91 -15.47 1.71 14.94 0.46 2,594.00 0.26 152.02 2,593.91 -15.80 1.95 15.22 0.08 2,688.00 0.47 202.61 2,687.91 -16.80 1.95 15.22 0.08 2,688.00 0.47 202.61 2,687.91 -16.34 1.90 15.77 0.39 2,778.00 0.70 210.39 2,876.90 -17.90 1.09 17.44 0.23 2,971.00 0.23 287.68 2,970.90 -18.34 0.62 17.95 0.73 3,065.00 0.12 154.14 3,064.90 -18.37 0.48 18.01 0.35 3,159.00 0.24 181.85 3,441.89 -20.65 0.36 20.28 0.14 3,536.00 0.45 182.46 3,252.90 -19.20 0.63 18.80 0.26 3,348.00 0.46 198.77 3,347.89 -19.93 0.49 19.55 0.14 3,536.00 0.64 188.35 3,535.89 -21.63 0.27 21.16 0.22 3,631.00 0.57 243.03 3,724.88 -22.22 -0.21 21.92 0.83 3,913.00 0.70 213.17 3,912.87 -23.86 -2.05 23.86 0.15 4,008.00 0.17 247.70 4,007.87 -24.40 -2.50 2.38 0.16 3,819.00 0.57 218.23 3,818.88 -22.22 -0.21 21.92 0.83 3,913.00 0.70 213.17 3,912.87 -23.86 -2.05 23.86 0.15 4,008.00 0.17 247.70 4,007.87 -24.40 -2.50 2.47 0.80 4,100.00 0.86 189.06 4,289.85 -27.88 -1.97 2.25 2.55 2.55 2.55 2.55 2.55 2.55 2.5	1,651.00	0.21		-				
1,934,00 0.53 180,76 1,933,94 -11.35 2.36 10.77 0.11 2,028,00 0.67 192.54 2,027,94 -12.32 2.23 11.75 0.20 2,123,00 0.96 192.24 2,122,93 -13.84 1.95 13.10 0.31 2,217,00 0.24 222.65 2,216.92 -14.56 1.66 14.05 0.81 2,311.00 0.68 222.90 2,310.92 -15.11 1.13 14.69 0.47 2,405,00 0.51 76.72 2,404,92 -15.42 1.16 14.99 1.21 2,499.00 0.24 135.04 2,498.91 -15.47 1.71 14.94 0.46 2,594.00 0.26 152.02 2,593.91 -15.80 1.95 15.22 0.08 2,688.00 0.47 202.61 2,687.91 -16.34 1.90 15.77 0.39 2,782.00 0.48 207.89 2,781.91 -17.05 1.57 18.52 0.05 2,877.00 0.70 210.39 2,876.90 -17.80 1.09 17.44 0.23 2,971.00 0.23 287.68 2,970.90 -18.34 0.62 17.95 0.73 3,005.00 0.12 154.14 3,064.90 -18.37 0.48 18.01 0.35 3,159.00 0.24 161.63 3,158.90 -18.64 0.59 18.26 0.13 3,253.00 0.45 182.46 3,252.90 -19.20 0.63 18.80 0.26 3,348.00 0.46 198.77 3,347.89 -19.93 0.49 19.55 0.14 3,536.00 0.64 188.35 3,535.89 -21.63 0.27 21.16 0.22 3,631.00 0.57 243.03 3,724.88 -22.22 -0.21 21.92 0.83 3,913.00 0.70 213.31 3,912.87 -23.86 -2.05 23.86 0.15 4,008.00 0.17 247.70 4,007.87 -24.40 -2.50 2.55 28.86 0.15 4,008.00 0.17 247.70 4,007.87 -24.40 -2.50 2.55 28.78 0.46 4,280.00 0.88 189.06 4,289.85 -27.88 -2.05 2.55 28.78 0.46 4,280.00 0.86 189.06 4,289.85 -27.88 -1.97 27.31 0.48 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46 4,280.00 0.86 189.06 4,289.85 -27.88 -1.97 27.31 0.48 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46 4,280.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.	1,731.00	0.31	197.35	1,730.95	-9.52	2.48	8.95	0.13
2,028,00	1,840.00	0.63	181.22	1,839.95	-10.40	2.38	9.83	0.31
2,123,00 0,96 192,24 2,122,93 -13.64 1,95 13.10 0.31 2,217,00 0,24 222,65 2,216,92 -14.56 1,66 14.05 0.81 2,311,00 0,68 222,90 2,310,92 -15.11 1,13 14.69 0.47 2,405,00 0,51 76.72 2,404,92 -15.42 1,16 14.99 1,21 2,499,00 0,24 135.04 2,498,91 -15.80 1,95 15.22 0.08 2,594,00 0,26 152.02 2,593,91 -16.80 1,95 15.22 0.08 2,688,00 0,47 202,61 2,687,91 -16.34 1,90 15.77 0.39 2,782,00 0,48 207.89 2,781,91 -17.05 1,57 16.52 0.05 2,877,00 0,70 210.39 2,876,90 -17.90 1,09 17.44 0.23 2,971,00 0,23 287,68 2,970,90 -18.37 0.48 18.01 <td>1,934.00</td> <td>0.53</td> <td>180.76</td> <td>1,933.94</td> <td>-11.35</td> <td>2.36</td> <td>10.77</td> <td>0.11</td>	1,934.00	0.53	180.76	1,933.94	-11.35	2.36	10.77	0.11
2,217.00 0.24 222.65 2,216.92 -14.56 1.65 14.05 0.81 2,311.00 0.68 222.90 2,310.92 -15.11 1.13 14.69 0.47 2,405.00 0.51 76.72 2,404.92 -15.42 1.16 14.99 1.21 2,499.00 0.24 135.04 2,498.91 -16.47 1.71 14.94 0.46 2,594.00 0.26 152.02 2,593.91 -16.80 1.95 15.22 0.08 2,888.00 0.47 202.61 2,687.91 -16.34 1.90 15.77 0.39 2,782.00 0.48 207.89 2,781.91 -17.05 1.57 18.52 0.05 2,877.00 0.70 210.39 2,876.90 -17.90 1.09 17.44 0.23 2,971.00 0.23 287.68 2,970.90 -18.34 0.62 17.95 0.73 3,065.00 0.12 154.14 3,084.90 -18.37 0.48 18.01 <td>2,028.00</td> <td>0.67</td> <td>192.54</td> <td>2,027.94</td> <td>-12.32</td> <td>2.23</td> <td></td> <td></td>	2,028.00	0.67	192.54	2,027.94	-12.32	2.23		
2,311.00 0.68 222.90 2,310.92 -15.11 1.13 14.69 0.47 2,405.00 0.51 76.72 2,404.92 -15.42 1.16 14.99 1.21 2,499.00 0.24 135.04 2,498.91 -16.47 1.71 14.94 0.46 2,594.00 0.26 152.02 2,593.91 -15.80 1.95 15.22 0.08 2,888.00 0.47 202.61 2,687.91 -16.34 1.90 15.77 0.39 2,782.00 0.48 207.89 2,781.91 -17.05 1.57 16.52 0.05 2,877.00 0.70 210.39 2,876.90 -17.90 1.09 17.44 0.23 2,971.00 0.23 287.68 2,970.90 -18.34 0.62 17.95 0.73 3,065.00 0.12 154.14 3,064.90 -18.37 0.48 18.01 0.35 3,253.00 0.45 182.46 3,252.90 -19.20 0.63 18.80 <td>2,123.00</td> <td>0.96</td> <td>192.24</td> <td>2,122.93</td> <td>-13.64</td> <td>1.95</td> <td></td> <td></td>	2,123.00	0.96	192.24	2,122.93	-13.64	1.95		
2,405.00 0.51 76.72 2,404.92 -15.42 1.16 14.99 1.21 2,499.00 0.24 135.04 2,498.91 -16.47 1.71 14.94 0.46 2,594.00 0.26 152.02 2,593.91 -16.80 1.95 15.22 0.08 2,888.00 0.47 202.61 2,887.91 -16.34 1.90 15.77 0.39 2,782.00 0.48 207.89 2,781.91 -17.05 1.67 16.52 0.05 2,877.00 0.70 210.39 2,876.90 -17.90 1.09 17.44 0.23 2,971.00 0.23 287.68 2,970.90 -18.34 0.62 17.95 0.73 3,065.00 0.12 154.14 3,064.90 -18.37 0.48 18.01 0.35 3,159.00 0.24 161.63 3,158.90 -19.20 0.63 18.80 0.26 3,348.00 0.46 198.77 3,347.69 -19.93 0.49 19.55 0.14 3,442.00 0.44 181.85 3,441.89 -20.65	2,217.00	0.24	222.65	2,216.92	-14.56	. 1.65	14.05	0,81
2,499,00 0.24 135,04 2,498,81 -15.47 1.71 14.94 0.46 2,594,00 0.26 152.02 2,593,91 -15.80 1.95 15.22 0.08 2,688,00 0.47 202,61 2,687,91 -16.34 1.90 15.77 0.39 2,782,00 0.48 207.89 2,781.91 -17.05 1.67 16.52 0.05 2,877,00 0.70 210.39 2,876.90 -17.90 1.09 17.44 0.23 2,971,00 0.23 287.68 2,970.90 -18.34 0.62 17.95 0.73 3,065,00 0.12 154.14 3,064.90 -18.37 0.48 18.01 0.35 3,159,00 0.24 161.63 3,158.90 -16.64 0.59 18.26 0.13 3,253,00 0.45 182.46 3,252.90 -19.20 0.63 18.80 0.26 3,348,00 0.46 198.77 3,347.89 -19.93 0.49 19.55 </td <td>2,311.00</td> <td>0.68</td> <td>222.90</td> <td>2,310.92</td> <td>-15.11</td> <td>1.13</td> <td></td> <td></td>	2,311.00	0.68	222.90	2,310.92	-15.11	1.13		
2,594,00 0,26 152,02 2,593,91 -15.80 1,95 15.22 0.08 2,688,00 0,47 202,61 2,687,91 -16.34 1,90 15.77 0.39 2,782,00 0,48 207,89 2,781,91 -17.05 1,57 16.52 0.05 2,877,00 0,70 210,39 2,876,90 -17.90 1,09 17.44 0.23 2,971,00 0,23 287,68 2,970,90 -18.34 0,62 17.95 0,73 3,065,00 0,12 154.14 3,064,90 -18.37 0,48 18.01 0,36 3,159,00 0,24 161,63 3,159,90 -18.64 0,59 18.26 0,13 3,253,00 0,45 182,46 3,252,90 -19.20 0,63 18.80 0,26 3,348,00 0,46 198,77 3,347,89 -19.93 0,49 19.55 0,14 3,531,00 0,53 248,87 3,630,88 -22.25 0,27 21.16 </td <td>2,405.00</td> <td>0.51</td> <td>76.72</td> <td>2,404.92</td> <td>-15.42</td> <td></td> <td></td> <td></td>	2,405.00	0.51	76.72	2,404.92	-15.42			
2,888.00 0.47 202.61 2,687.91 -16.34 1.90 15.77 0.39 2,782.00 0.48 207.89 2,781.91 -17.05 1.57 18.52 0.05 2,877.00 0.70 210.39 2,876.90 -17.90 1.09 17.44 0.23 2,971.00 0.23 287.68 2,970.90 -18.34 0.62 17.95 0.73 3,065.00 0.12 154.14 3,064.90 -18.37 0.48 18.01 0.35 3,159.00 0.24 161.63 3,158.90 -18.64 0.59 18.26 0.13 3,253.00 0.45 182.46 3,252.90 -19.20 0.63 18.80 0.26 3,348.00 0.46 198.77 3,347.89 -19.93 0.49 19.55 0.14 3,636.00 0.64 188.35 3,535.89 -21.53 0.27 21.16 0.22 3,631.00 0.53 248.67 3,630.88 -22.22 -0.21 21.92<	2,499.00	0.24	135.04	2,498.91	-15.47			
2,782.00 0.48 207.89 2,781.91 -17.05 1.57 18.52 0.05 2,877.00 0.70 210.39 2,876.90 -17.90 1.09 17.44 0.23 2,971.00 0.23 287.68 2,970.90 -18.34 0.62 17.95 0.73 3,065.00 0.12 154.14 3,064.90 -18.37 0.48 18.01 0.36 3,159.00 0.24 161.63 3,158.90 -18.64 0.59 18.26 0.13 3,253.00 0.45 182.46 3,252.90 -19.20 0.63 18.80 0.26 3,348.00 0.46 198.77 3,347.89 -19.93 0.49 19.55 0.14 3,536.00 0.44 181.85 3,441.89 -20.65 0.36 20.28 0.14 3,536.00 0.64 188.35 3,535.89 -21.53 0.27 21.16 0.22 3,631.00 0.53 248.67 3,630.88 -22.22 -0.21 21.92<	2,594.00	0.26	152.02	2,593.91	-15.80			
2,877.00 0.70 210.39 2,876.90 -17.90 1.09 17.44 0.23 2,877.00 0.23 287.68 2,970.90 -18.34 0.62 17.95 0.73 3,065.00 0.12 154.14 3,064.90 -18.37 0.48 18.01 0.35 3,159.00 0.24 161.63 3,158.90 -18.64 0.59 18.26 0.13 3,253.00 0.45 182.46 3,252.90 -19.20 0.63 18.80 0.26 3,348.00 0.46 198.77 3,347.89 -19.93 0.49 19.55 0.14 3,442.00 0.44 181.85 3,441.89 -20.65 0.36 20.28 0.14 3,536.00 0.64 188.35 3,535.89 -21.53 0.27 21.16 0.22 3,631.00 0.53 248.67 3,630.88 -22.22 -0.21 21.92 0.63 3,725.00 0.37 243.03 3,724.88 -22.51 -0.89 22.33 0.18 3,819.00 0.57 218.23 3,818.88 -23	2,688.00	0.47	202,61	2,687.91	-16.34	1.90	15.77	0.39
2,971.00 0.23 287.68 2,970.90 -18.34 0.62 17.95 0.73 3,065.00 0.12 154.14 3,064.90 -18.37 0.48 18.01 0.35 3,159.00 0.24 161.63 3,158.90 -18.64 0.59 18.26 0.13 3,253.00 0.45 182.46 3,252.90 -19.20 0.63 18.80 0.26 3,348.00 0.46 198.77 3,347.89 -19.93 0.49 19.55 0.14 3,442.00 0.44 181.85 3,441.89 -20.65 0.36 20.28 0.14 3,536.00 0.64 188.35 3,535.89 -21.53 0.27 21.16 0.22 3,631.00 0.53 248.67 3,630.88 -22.22 -0.21 21.92 0.63 3,725.00 0.37 243.03 3,724.88 -22.51 -0.89 22.33 0.18 3,819.00 0.57 218.23 3,818.88 -23.02 -1.45 22.9	2,782.00	0.48	207.89	2,781.91	-17.05	1.57	18.52	0.05
3,065.00 0.12 154.14 3,064.90 -18.37 0.48 18.01 0.35 3,159.00 0.24 161.63 3,158.90 -18.64 0.59 18.26 0.13 3,253.00 0.45 182.46 3,252.90 -19.20 0.63 18.80 0.26 3,348.00 0.46 198.77 3,347.89 -19.93 0.49 19.55 0.14 3,442.00 0.44 181.85 3,441.89 -20.65 0.36 20.28 0.14 3,536.00 0.64 188.35 3,535.89 -21.53 0.27 21.16 0.22 3,631.00 0.53 248.67 3,630.88 -22.22 -0.21 21.92 0.63 3,725.00 0.37 243.03 3,724.88 -22.51 -0.89 22.33 0.18 3,819.00 0.57 218.23 3,818.88 -23.02 -1.45 22.92 0.30 3,913.00 0.70 213.17 3,912.87 -23.86 -2.05 23.	2,877.00	0.70	210.39	2,876.90	-17.90	1.09	17.44	
3,159.00 0.24 181.63 3,158.90 -18.64 0.59 18.26 0.13 3,253.00 0.45 182.46 3,252.90 -19.20 0.63 18.80 0.26 3,348.00 0.46 198.77 3,347.89 -19.93 0.49 19.55 0.14 3,442.00 0.44 181.85 3,441.89 -20.65 0.36 20.28 0.14 3,536.00 0.64 188.35 3,535.89 -21.53 0.27 21.16 0.22 3,631.00 0.53 248.67 3,630.88 -22.22 -0.21 21.92 0.63 3,725.00 0.37 243.03 3,724.88 -22.51 -0.89 22.33 0.18 3,819.00 0.57 218.23 3,818.88 -23.02 -1.45 22.92 0.30 3,913.00 0.70 213.17 3,912.87 -23.86 -2.05 23.86 0.15 4,008.00 0.17 247.70 4,007.87 -24.40 -2.50 24.47 0.60 4,196.00 0.43 155.14 4,195.86	2,971.00	0.23	287.68	2,970.90	-18.34	0.62		
3,253.00 0.45 182.46 3,252.90 -19.20 0.63 18.80 0.26 3,348.00 0.46 198.77 3,347.89 -19.93 0.49 19.55 0.14 3,442.00 0.44 181.85 3,441.89 -20.65 0.36 20.28 0.14 3,536.00 0.64 188.35 3,535.89 -21.53 0.27 21.16 0.22 3,631.00 0.53 248.67 3,630.88 -22.22 -0.21 21.92 0.63 3,725.00 0.37 243.03 3,724.88 -22.51 -0.89 22.33 0.18 3,819.00 0.57 218.23 3,818.88 -23.02 -1.45 22.92 0.30 3,913.00 0.70 213.17 3,912.87 -23.86 -2.05 23.86 0.15 4,008.00 0.17 247.70 4,007.87 -24.40 -2.50 24.47 0.60 4,196.00 0.43 155.14 4,195.86 -25.25 -2.52 25.31 1.01 4,290.00 0.86 169.06 4,289.85 <td< td=""><td>3,065.00</td><td>0.12</td><td>154.14</td><td>3,064.90</td><td></td><td></td><td></td><td></td></td<>	3,065.00	0.12	154.14	3,064.90				
3,348.00 0.46 198.77 3,347.89 -19.93 0.49 19.55 0.14 3,442.00 0.44 181.85 3,441.89 -20.65 0.36 20.28 0.14 3,536.00 0.64 188.35 3,535.89 -21.53 0.27 21.16 0.22 3,631.00 0.53 248.67 3,630.88 -22.22 -0.21 21.92 0.63 3,725.00 0.37 243.03 3,724.88 -22.22 -0.21 21.92 0.63 3,819.00 0.57 218.23 3,818.88 -23.02 -1.45 22.92 0.30 3,913.00 0.70 213.17 3,912.87 -23.86 -2.05 23.86 0.15 4,008.00 0.17 247.70 4,007.87 -24.40 -2.50 24.47 0.60 4,102.00 0.98 171.77 4,101.86 -25.25 -2.52 25.31 1.01 4,196.00 0.43 155.14 4,195.86 -26.37 -2.25 28.36 0.62 4,290.00 0.86 169.06 4,289.85 <t< td=""><td>3,159.00</td><td>0.24</td><td>161.63</td><td>3,158.90</td><td>-18.64</td><td>0.59</td><td>18.26</td><td>0.13</td></t<>	3,159.00	0.24	161.63	3,158.90	-18.64	0.59	18.26	0.13
3,442.00 0.44 181.85 3,441.89 -20.65 0.36 20.28 0.14 3,536.00 0.64 188.35 3,535.89 -21.53 0.27 21.16 0.22 3,631.00 0.53 248.67 3,630.88 -22.22 -0.21 21.92 0.63 3,725.00 0.37 243.03 3,724.88 -22.21 -0.89 22.33 0.18 3,819.00 0.57 218.23 3,818.88 -23.02 -1.45 22.92 0.30 3,913.00 0.70 213.17 3,912.87 -23.86 -2.05 23.86 0.15 4,008.00 0.17 247.70 4,007.87 -24.40 -2.50 24.47 0.60 4,102.00 0.98 171.77 4,101.86 -25.25 -2.52 25.31 1.01 4,196.00 0.43 155.14 4,195.86 -26.37 -2.25 28.36 0.62 4,290.00 0.86 169.06 4,289.85 -27.38 -1.97 27.31 0.48 4,385.00 0.98 195.38 4,384.84 <	3,253.00	0.45	182.46	3,252.90	-19.20			
3,536.00 0.64 188.35 3,535.89 -21.53 0.27 21.16 0.22 3,631.00 0.53 248.67 3,630.88 -22.22 -0.21 21.92 0.63 3,725.00 0.37 243.03 3,724.88 -22.25 -0.89 22.33 0.18 3,819.00 0.57 218.23 3,818.88 -23.02 -1.45 22.92 0.30 3,913.00 0.70 213.17 3,912.87 -23.86 -2.05 23.86 0.15 4,008.00 0.17 247.70 4,007.87 -24.40 -2.50 24.47 0.60 4,102.00 0.98 171.77 4,101.86 -25.25 -2.52 25.31 1.01 4,196.00 0.43 155.14 4,195.86 -26.37 -2.25 28.36 0.62 4,290.00 0.86 169.06 4,289.85 -27.38 -1.97 27.31 0.48 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46	3,348.00	0.46	198.77	3,347.89	-19.93	0.49	19.55	
3,631.00 0.53 248.67 3,630.88 -22.22 -0.21 21.92 0.63 3,725.00 0.37 243.03 3,724.88 -22.51 -0.89 22.33 0.18 3,819.00 0.57 218.23 3,818.88 -23.02 -1.45 22.92 0.30 3,913.00 0.70 213.17 3,912.87 -23.86 -2.05 23.86 0.15 4,008.00 0.17 247.70 4,007.87 -24.40 -2.50 24.47 0.60 4,102.00 0.98 171.77 4,101.86 -25.25 -2.52 25.31 1.01 4,196.00 0.43 155.14 4,195.86 -26.37 -2.25 26.36 0.62 4,290.00 0.86 169.06 4,289.85 -27.38 -1.97 27.31 0.48 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46	3,442.00	0.44	181.85	3,441.89				
3,725.00 0.37 243.03 3,724.88 -22.51 -0.89 22.33 0.18 3,819.00 0.57 218.23 3,818.88 -23.02 -1.45 22.92 0.30 3,913.00 0.70 213.17 3,912.87 -23.86 -2.05 23.86 0.15 4,008.00 0.17 247.70 4,007.87 -24.40 -2.50 24.47 0.60 4,102.00 0.98 171.77 4,101.86 -25.25 -2.52 25.31 1.01 4,196.00 0.43 155.14 4,195.86 -26.37 -2.25 26.36 0.62 4,290.00 0.86 169.06 4,289.85 -27.38 -1.97 27.31 0.48 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46	3,536.00	0.64	188.35	3,535.89				
3,819.00 0.57 218.23 3,818.88 -23.02 -1.45 22.92 0.30 3,913.00 0.70 213.17 3,912.87 -23.86 -2.05 23.86 0.15 4,008.00 0.17 247.70 4,007.87 -24.40 -2.50 24.47 0.60 4,102.00 0.98 171.77 4,101.86 -25.25 -2.52 25.31 1.01 4,196.00 0.43 155.14 4,195.86 -26.37 -2.25 28.36 0.62 4,290.00 0.86 169.06 4,289.85 -27.38 -1.97 27.31 0.48 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46	3,631.00	0.53	248.67	3,630.88	-22.22	-0.21	21.92	0.63
3,913.00 0.70 213.17 3,912.87 -23.86 -2.05 23.86 0.15 4,008.00 0.17 247.70 4,007.87 -24.40 -2.50 24.47 0.60 4,102.00 0.98 171.77 4,101.86 -25.25 -2.52 25.31 1.01 4,196.00 0.43 155.14 4,195.86 -26.37 -2.25 28.36 0.62 4,290.00 0.86 169.08 4,289.85 -27.38 -1.97 27.31 0.48 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46	3,725.00	0.37	243.03	3,724.88	-22.51	-0.89		
4,008.00 0.17 247.70 4,007.87 -24.40 -2.50 24.47 0.60 4,102.00 0.98 171.77 4,101.86 -25.25 -2.52 25.31 1.01 4,196.00 0.43 155.14 4,195.86 -26.37 -2.25 28.36 0.62 4,290.00 0.86 169.06 4,289.85 -27.38 -1.97 27.31 0.48 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46	3,819.00	0.57	218.23	3,818.88	-23.02	-1.45		
4,102.00 0.98 171.77 4,101.86 -25.25 -2.52 25.31 1.01 4,196.00 0.43 155.14 4,195.86 -26.37 -2.25 28.36 0.62 4,290.00 0.86 169.06 4,289.85 -27.38 -1.97 27.31 0.48 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46	3,913.00	0.70	213.17	3,912.87				
4,196.00 0.43 155.14 4,195.86 -26.37 -2.25 28.36 0.62 4,290.00 0.86 169.06 4,289.85 -27.38 -1.97 27.31 0.48 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46	4,008.00	0.17	247.70	•				
4,290.00 0.86 169.06 4,289.85 -27.38 -1.97 27.31 0.48 4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46	4,102.00	0.98	171.77	4,101.86	-25.25	-2.52	25.31	1.01
4,385.00 0.98 195.38 4,384.84 -28.86 -2.05 28.78 0.46	4,196.00	0.43	155.14	4,195.86	-26.37			
4,000.00	4,290.00	0.86	169.06	4,289.85	-27.38			
4,479.00 0.62 207.40 4,478.83 -30.09 -2.50 30.07 0.42	4,385.00	0.98		-				
	4,479.00	0.62	207.40	4,478.83	-30,09	-2.50	30.07	0.42

HALLIBURTON

Design Report for FD 16-10-3-2 SWD - MWD Survey

Measured Depth (ft)	inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/:W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	
4,574.00	1.52	200.30	4,573.81	-31.73	-3.17	31.80	0.96	• .
4,668.00	1.64	197.29	4,667.78	-34.18	-4.00	34.36	0.18	
4,782.00	1.01	203.11	4,761.75	-36.23	-4.73	36.50	0.68	
4,951.00	0.99	216.74	4,950.72	-39.07	-6.36	39.58	0.13	
5,045.00	1.44	194.40	5,044.70	-40.86	-7.14	41.48	0.69	
5,140.00	3.09	204.45	5,139.62	-44.35	-8.50	45,15	1.78	
5,234.00	3.43	189.93	5,233.47	-49.43	-10.03	50.42	0.95	
5,328.00	3.60	188.10	5,327.30	-55.12	-10.93	56.18	0.22	
5,423.00	4.05	191.38	5,422.08	-61.36	-12.01	62.51	0.53	
5,517.00	4.18	188.80	5,515.84	-68.00	-13.19	69.26	0.24	
5,638.00	3.98	181.90	5,636.54	-76.56	-14.00	77.82	0.44	
Final MWD St	irvey		autoro da los discolos. Como autoro da los discolos de la como de la			afa shi shi ili		
5,695.00	3,98	181.90	5,693.40	-80.51	-14.14	81.74	0.00	

Design Annotations

Measured	Vertical	Local Coor	dinates	
Depth (ft)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
124.00	124.00	-0.21	-0.44	First MWD Survey
5,638,00	5.636.54	-76.56	-14.00	Final MWD Survey
5.695.00	5,693.40	-80.51	-14.14	Survey Projection to TD

Vertical Section Information

	Angle	Angle Origin Origin	in	Start			
	Type	Target	Azimuth (°)	Type	+N/_S (ft)	+E/-W (ft)	TVD (ft)
TD		No Target (Freehand)	189.96	Slot	0.00	0.00	0.00

Surve

<u>ey tooi prog</u>	<u>ram</u>			•
From	To		Survey/Plan	Survey Tool
(ft) 124.00	(ft) 5,695.00	Sperry MWD Surveys		MWD

Targets

Target Name - hit/miss	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting		
target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	Latitude	Longitude
FD 16-10-3-2	0.00	0.00	5.653.00	0.00	0.00	695,849.82	2,489,839.90	40° 13′ 50.189 N	109° 44' 43.699 W

⁻ actual wellpath misses target center by 79.55ft at 5638.00ft MD (5636:54 TVD, -76.56 N, -14.00 E) - Rectangle (sides W200.00 H200.00 D0.00)



GARY R. HERBERT

GREGORY S. BELL Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER

Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA Division Director

UNDERGROUND INJECTION CONTROL PERMIT Cause No. UIC-405.1

Operator:

Bill Barrett Corporation

Well:

FD 16-10-3-2 SWD

Location:

Section 10, Township 3 South, Range 2 East, USM

County:

Uintah

API No.:

43-047-53004

Well Type:

Saltwater Disposal Well

Stipulations of Permit Approval

1. Approval for conversion to Injection Well issued on April 1, 2013.

2. Maximum Allowable Injection Pressure: 1,180 psig

3. Maximum Allowable Injection Rate: (restricted by pressure limitation)

4. Injection Interval: Upper Green River Formation, (4,366' - 4,658')

5. A Monthly Injection Report shall be filed as required by R649-8-20.

Approved by:

John\Rogers

ciate Director

4-16-2013 Date

JR/AM/is

cc: Bruce Suchomel, Environmental Protection Agency

Uintah County BLM - Vernal

Well File

N:\O&G Permits\Injection Permits\Bill Barrett Corp





Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA Division Director

April 1, 2013

Bill Barrett Corporation C/O Brady Riley 1099 18th Street, Suite 2300 Denver, CO 80202

Subject: Bill Barrett Corp. Well: FD 16-10-3-2 SWD, Section 10, Township 3 South, Range 2 East,

USM, Uintah County, Utah, API Well # 43-047-53004

Dear Ms. Riley:

Pursuant to Utah Admin. Code R649-5-3-3, the Division of Oil, Gas and Mining (the "Division") issues its administrative approval for conversion of the referenced well to a Class II injection well. Accordingly, the following stipulations shall apply for full compliance with this approval:

- 1. Compliance with all applicable requirements for the operation, maintenance and reporting for Underground Injection Control ("UIC") Class II injection wells pursuant to Utah Admin. Code R649-1 et seq.
- 2. Conformance with all conditions and requirements of the complete application submitted by Bill Barrett Corp.
- 3. A step-rate test and mechanical integrity test shall be conducted prior to commencing injection.
- 4. Pressure shall be monitored between the surface casing and the production casing on a regular basis. Any pressure changes observed shall be reported to the Division immediately.

A final approval to commence injection will be issued upon satisfactory completion of the listed stipulations. If you have any questions regarding this approval or the necessary requirements, please contact Ammon McDonald at 801-538-5337 or Brad Hill at 801-538-5315.

Sincerely.

ohn Rogers

Associate Director

cc: Bruce Suchomel, Environmental Protection Agency **Uintah County** Well File

N:\O&G Permits\Injection Permits\Bill Barrett Corp



BEFORE THE DIVISION OF OIL, GAS AND MINING DEPARTMENT OF NATURAL RESOURCES STATE OF UTAH NOTICE OF AGENCY ACTION CAUSE NO. UIC - 405.1

IN THE MATTER OF THE APPLICATION OF BILL BARRETT CORPORATION FOR ADMINISTRATIVE APPROVAL OF THE FD 16-10-3-2 SWD WELL LOCATED IN SECTION 10, TOWNSHIP 3S, RANGE 2E, UINTAH COUNTY, UTAH, AS A CLASS II INJECTION WELL.

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of Bill Barrett Corporation, 1099 18th Street 2300, Denver, Colorado, 80202, (303) 312-8115, for administrative approval of the FD 16-10-3-2 SWD well, API #43-047-53004, located in SE/4 SE/4, Section 10, Township 3S, Range 2E, Uinta Baseline and Meridian, Uintah County, Utah, for conversion to a Class II injection well. The adjudicative proceedings will be conducted informally according to Utah Admin. Rule R649-10, Administrative Procedures.

Selected zones in the Upper Green River Formation will be used for water injection. The maximum requested injection pressure and rate will be determined based on fracture gradient information submitted by Bill Barrett Corporation.

Any person desiring to object to the application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. The Division's Presiding Officer for the proceeding is Brad Hill, Permitting Manager, at P.O. Box 145801, Salt Lake City, Utah 84114-5801, phone number (801) 538-5340. If such a protest or notice of intervention is received, a hearing will be scheduled in accordance with the aforementioned administrative procedure rule. Protestants and/or interveners should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 12th day of February, 2013.

STATE OF UTAH

DIVISION OF OIL, GAS & MINING

Publish Pats
SL Trib 2/15/13
UB Stareland
2/19/13

Brad Hill

Permitting Manager

Bill Barrett Corporation FD 16-10-3-2 Cause No. UIC – 405.1

Publication Notices were sent to the following:

Bill Barrett Corporation Attn: Brady Riley 1099 18th Street, Suite 2300 Denver, CO 80202

Uintah Basin Standard 268 South 200 East Roosevelt, UT 84066 Via e-mail legals@ubstandard.com

The Salt Lake Tribune
PO Box 45838
Salt Lake City, UT 84145
Via E-mail naclegal@mediaoneutah.com

Duchesne County Planning P O Box 317 Duchesne, UT 84021-0317

Bruce Suchomel US EPA Region 8 MS 8-P-W-GW 1595 Wynkoop St Denver, CO 80202-1129

Jean Sweet



Re: Notice of Agency Action – Bill Barrett Corp., FD 16-10-3-2, Cause No. UIC – 405.1

Cindy Kleinfelter <classifieds@ubstandard.com>
To: Jean Sweet <jsweet@utah.gov>

Wed, Feb 13, 2013 at 1:57 PM

On 2/12/2013 2:43 PM, Jean Sweet wrote:

To Whom It May Concern:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please <u>notify me via e-mail of the date it will be published</u>. My e-mail address is: jsweet@utah.gov.

Please send proof of publication and billing to:

Division of Oil, Gas and Mining

Suite 1210

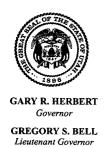
PO Box 145801

Salt Lake City, UT 84114-5801

Sincerely,

Jean Sweet Executive Secretary Utah Division of Oil, Gas and Mining 801-538-5329

Received. Thank you. It will publish Feb. 19. Cindy



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

February 12, 2013

VIA E-MAIL legals@ubstandard.com

Uintah Basin Standard 268 South 200 East Roosevelt, UT 84066

Subject: Notice of Agency Action – Bill Barrett Corp., FD 16-10-3-2, Cause No. UIC – 405.1

To Whom It May Concern:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please <u>notify me via e-mail of the date it will be published</u>. My e-mail address is: <u>jsweet@utah.gov</u>.

Please send proof of publication and billing to:

Division of Oil, Gas and Mining Suite 1210 PO Box 145801 Salt Lake City, UT 84114-5801

Sincerely,

Jean Sweet

Executive Secretary

Jan Sweet

Enclosure





Proof for Notice

Stowe, Ken <naclegal@mediaoneutah.com> Reply-To: "Stowe, Ken" <naclegal@mediaoneutah.com> To: jsweet@utah.gov

AD# 858333 Run SL Trib & Des News 2/15 Cost \$176.36

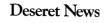
Thank You

OrderConf.pdf
118K

Tue, Feb 12, 2013 at 3:05 PM







Order Confirmation for Ad #0000858333-01

Client Client Phone

DIV OF OIL-GAS & MINING

801-538-5340

Payor Customer

DIV OF OIL-GAS & MINING

Payor Phone

801-538-5340

Account#

9001402352

Payor Account

9001402352

Address

1594 W NORTH TEMP #1210,P.O. BOX 145801 Payor Address

SALT LAKE CITY, UT 84114 USA

1594 W NORTH TEMP #1210,P.O. BOX

SALT LAKE CITY, UT 84114

Fax **EMail** 801-359-3940

Ordered By

Acct. Exec

juliecarter@utah.gov

Jean

kstowe

Total Amount

\$176.36

Payment Amt

\$0.00

Tear Sheets

Proofs

Affidavits

Amount Due

\$176.36 0

0

Payment Method

PO Number

Cause No. UIC-405.1

Confirmation Notes:

Text: Jean

Ad Type Legal Liner

Ad Size

Color

2.0 X 51 Li

<NONE>

Product

Salt Lake Tribune::

Placement

Legal Liner Notice - 0998

Position Public Meeting/Hear-ing Notices

Scheduled Date(s):

2/15/2013

Product

Deseret News::

Placement

Legal Liner Notice - 0998

Position

Public Meeting/Hear-ing Notices

Scheduled Date(s):

2/15/2013

Product

Placement

sltrib.com:: Scheduled Date(s): Legal Liner Notice - 0998

2/15/2013

Product utahlegals.com::

Scheduled Date(s):

Placement

utahlegals.com

2/15/2013

Public Meeting/Hear-ing Notices

Position

utahlegals.com

Ad Content Proof Actual Size

BEFORE THE DIVISION OF OIL, GAS AND MINING DEPARTMENT OF NATURAL RESOURCES STATE OF UTAH NOTICE OF AGENCY ACTION CAUSE NO. UIC - 405.1

IN THE MATTER OF THE APPLICATION OF BILL BARRETT COR-PORATION FOR ADMINISTRATIVE APPROVAL OF THE FD 16-10-3-2 SWD WELL LOCATED IN SECTION 10, TOWNSHIP S RANGE 2E, UINTAH COUNTY, UTAH, AS A CLASS II INJECTION WELL

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby giver that the Division of Oil, Gas and Mining (the "Division") is commercing an informal adjudicative proceeding to consider the application of Bill Barrett Corporation, 1099 18th Street 2000, Derver, Colorado, 8002, 2003) 212-8115, for administrative approval of the FD 16-10-3-2 SWD well, API #43-047-53004, located in \$E/4\$ SE/4, Section 10, Township 35, Range 2E, Ultra Baseline and Meridian, Ultrath Courty, Unat, for conversion to a Class II injection well. The adjudicative proceedings will be conducted informatily according to Utoh Admin. Rule R649-10, Administrative Proceedures.

Selected zones in the Upper Green River Formation will be used for water injection. The maximum requested injection pressure and rane will be determined based on fracture gradient information submitted by Bill Barnett Corporation.

Any person desiring to object to the application or atterwise intervere in the proceeding, must file a written protest or retrice of intervention with the Division within fifteen days following publication of this rotice. The Division's Prestding Officer for the proceeding is Brad Hill, Permitting warager, at P.O. Box 145801, Sail Lake City, Utah 84114-5801, procedure (801) 38-5340. If such a protest or rotice of intervention is received, a hearing will be scheduled in accordance with the aforementioned administrative procedure rule. Protestians and/or intervenes should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 12th day of February, 2013. STATE OF UTAH DIVISION OF OIL, GAS & MINING

Brad Hill Permitting Manager 858333

UPAXLP



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

February 12, 2013

VIA E-MAIL naclegal@mediaoneutah.com

Salt Lake Tribune PO Box 45838 Salt Lake City, UT 84145

Subject: Notice of Agency Action - Bill Barrett Corp., FD 16-10-3-2, Cause No. UIC - 405.1

To Whom It May Concern:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please <u>notify me via e-mail of the date it will be published</u>. My e-mail address is: <u>jsweet@utah.gov</u>.

Please send proof of publication and billing for account #9001402352 to:

Division of Oil, Gas and Mining PO Box 145801 Salt Lake City, UT 84114-5801

Sincerely,

Jean Sweet

Executive Secretary

Enclosure



UNDERGROUND INJECTION CONTROL PERMIT APPLICATION

FD 16-10-3-2 400' FSL & 150' FEL SESE SEC. 10, T3S-R2E Uintah County, Utah API #43-047-53004

January 15th, 2013

Prepared for:

Utah Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Prepared by:

Brady Riley

Bill Barrett Corporation

1099 18th Street, Suite 2300

Denver, Colorado 80202

VIC-405.1

RECEIVED

JAN 23 2013

DIV. OF OIL, GAS & MINING

R649-5-2. Requirements for Class II Injection Wells Including Water Disposal, Storage and Enhanced Recovery Wells

- 2. The application for an injection well shall include a properly completed UIC Form 1 (Enclosed) and the following:
 - 2.1. A plat showing the location of the injection well, all abandoned or active wells within a one-half mile radius of the proposed well, and the surface owner and the operator of any lands or producing leases, respectively, within a one-half mile radius of the proposed injection well. **(Enclosed)**
 - 2.2. Copies of electrical or radioactive logs, including gamma ray logs, for the proposed well run prior to the installation of casing and indicating resistivity, spontaneous potential, caliper, and porosity. **(Enclosed)**
 - 2.3. A copy of a cement bond or comparable log run for the proposed injection well after casing was set and cemented. (Enclosed)
 - 2.4. Copies of logs already on file with the division should be referenced, but need not be refiled. (Copies previously submitted to UDOGM)
 - 2.5. A description of the casing or proposed casing program of the injection well and of the proposed method for testing the casing before use of the well. **(Enclosed)**
 - 2.6. A statement as to the type of fluid to be used for injection, its source and estimated amounts to be injected daily. **(Enclosed)**
 - 2.7. Standard laboratory analyses of:
 - 2.7.1. The fluid to be injected, (Enclosed)
 - 2.7.2. The fluid in the formation into which the fluid is being injected, and (Enclosed)
 - 2.7.3. The compatibility of the fluids. (Enclosed)
 - 2.8. The proposed average and maximum injection pressures. (Enclosed)
 - 2.9. Evidence and data to support a finding that the proposed injection well will not initiate fractures through the overlying strata or a confining interval that could enable the injected fluid or formation fluid to enter any fresh water strata. (Enclosed)
 - 2.10. Appropriate geological data on the injection interval with confining beds clearly labeled.
 - 2.10.1. Nearby Underground Sources of Drinking Water, including the geologic formation name, (Enclosed)
 - 2.10.2. Lithologic descriptions, thicknesses, depths, water quality, and lateral extent; **(Enclosed)**
 - 2.10.3. Information relative to geologic structure near the proposed well that may effect the conveyance and/or storage of the injected fluids. (Enclosed)
 - 2.11. A review of the mechanical condition of each well within a one-half mile radius of the proposed injection well to assure that no cond0uit exists that could enable fluids to migrate up or down the wellbore and enter improper intervals. (Enclosed)
 - 2.12. An affidavit certifying that a copy of the application has been provided to all operators, owners, and surface owners within a one-half mile radius of the proposed injection well. (Enclosed)

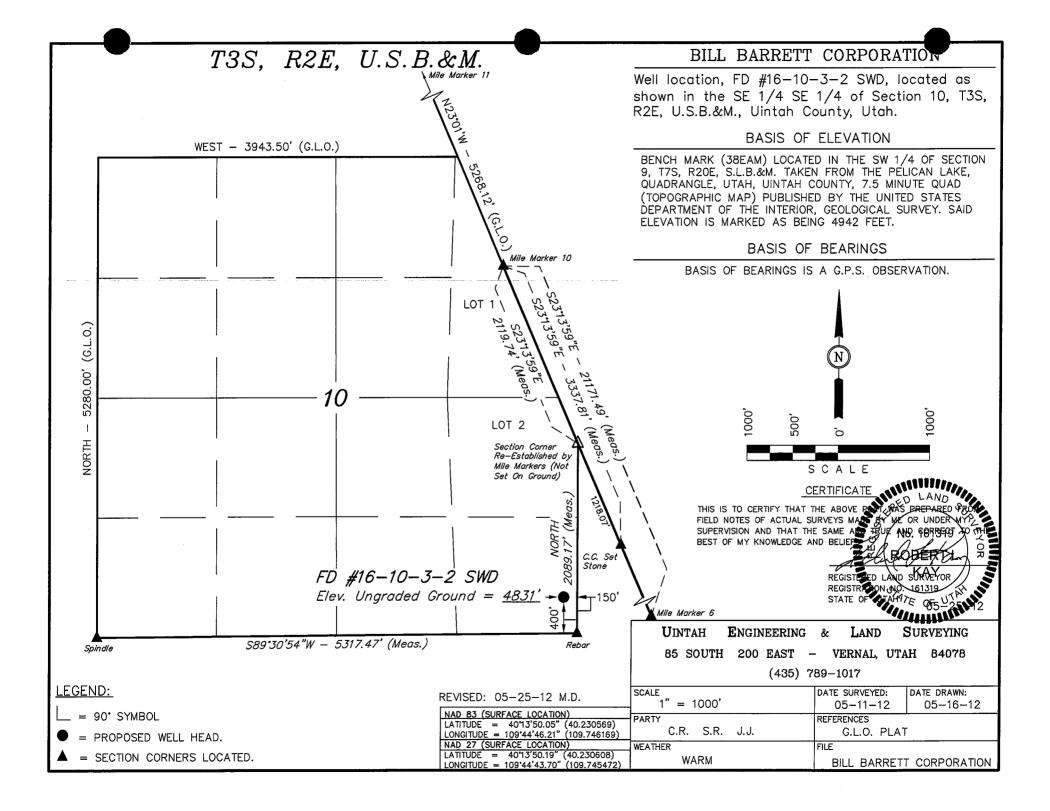
STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

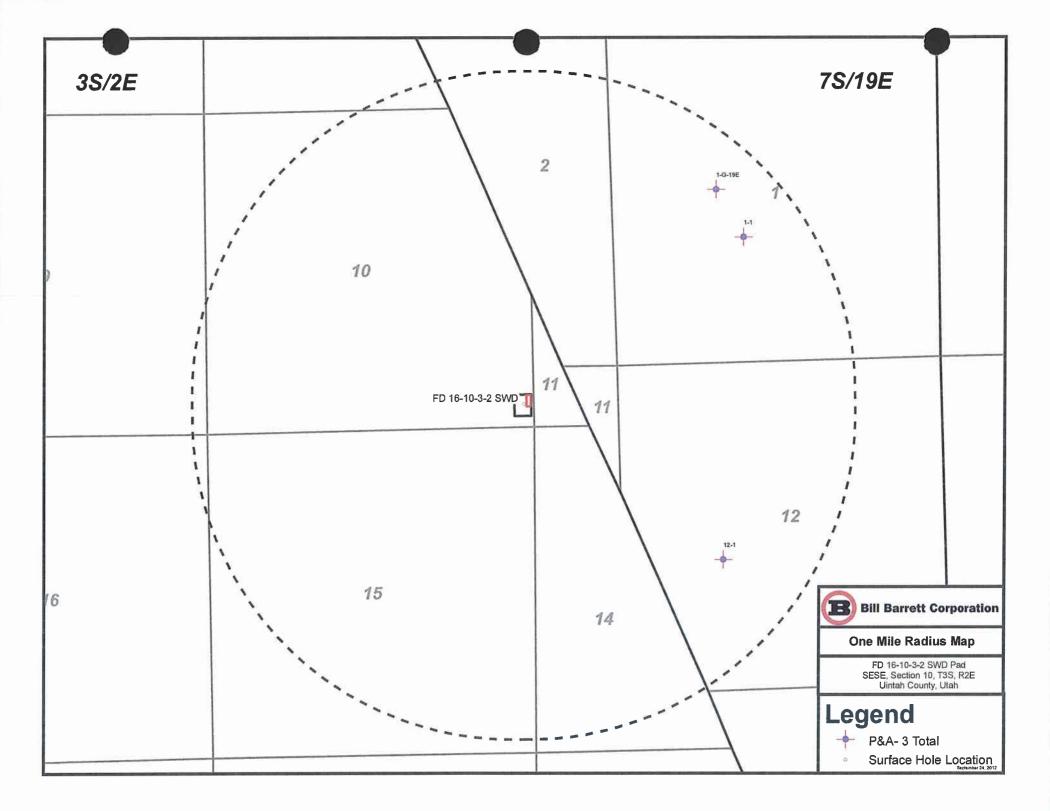
APPLICATION FOR IN	JECTION WELL	
Name of Operator Bill Barrett Corporation	Utah Account Number N	Well Name and Number FD 16-10-3-2 SWD
Address of Operator 1099 18th Street, 2300 CITY Denver STATE CO ZIP 80202 Location of Well	Phone Number (303) 312-8115	API Number 4304753004
	UINTAH	Field or Unit Name UNDESIGNATED
QQ, Section, Township, Range: SESE 10 3S 2E State:	UTAH	Lease Designation and Number fee
la this application for expansion of an existing and a 10		
Is this application for expansion of an existing project?	Yes No	
Will the proposed well be used for: Enhanced Recovery?	Yes No	
Disposal? Storage?	Yes ✓ No Yes □ No	
Is this application for a new well to be drilled?	Yes □ No	✓
If this application is for an existing well, has a casing test been performed? Date of test: 11/29/2012	Yes 🗹 No	
Proposed injection interval: from 4,366 to 4,658		
Proposed maximum injection: rate 3,000 bpd pressu	ıre <u>1,180</u> psig	
Proposed injection zone contains oil \mathbf{Z} , gas \square , and / or fresh water \square v	vithin ½ mile of the well.	
List of attachments: Attachments as required by R649-5-2. As per 2 follows: Sonic, CBL, Neutron Density, and Resis	4 under R649-5.2, logs of stivity.	on file with the Division are as
ATTACH ADDITIONAL INFORMATION	AS REQUIRED BY CURR	ENT
UTAH OIL AND GAS CONSERVA	TION GENERAL RULES	
I hereby certify that this report is true and complete to the best of my knowledge.		
Name (Please Print) Brady Riley	Title Permit Analyst	
Signature Signature	Date 11/16/2012	

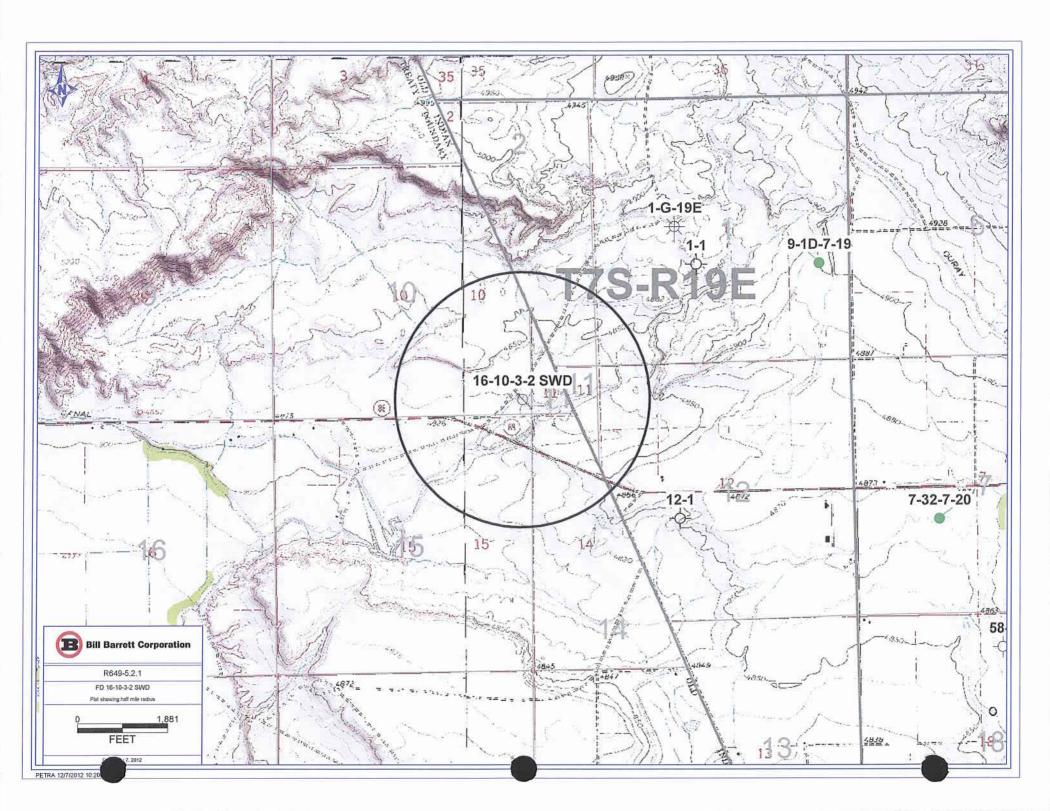
Permit Application Fact Sheet

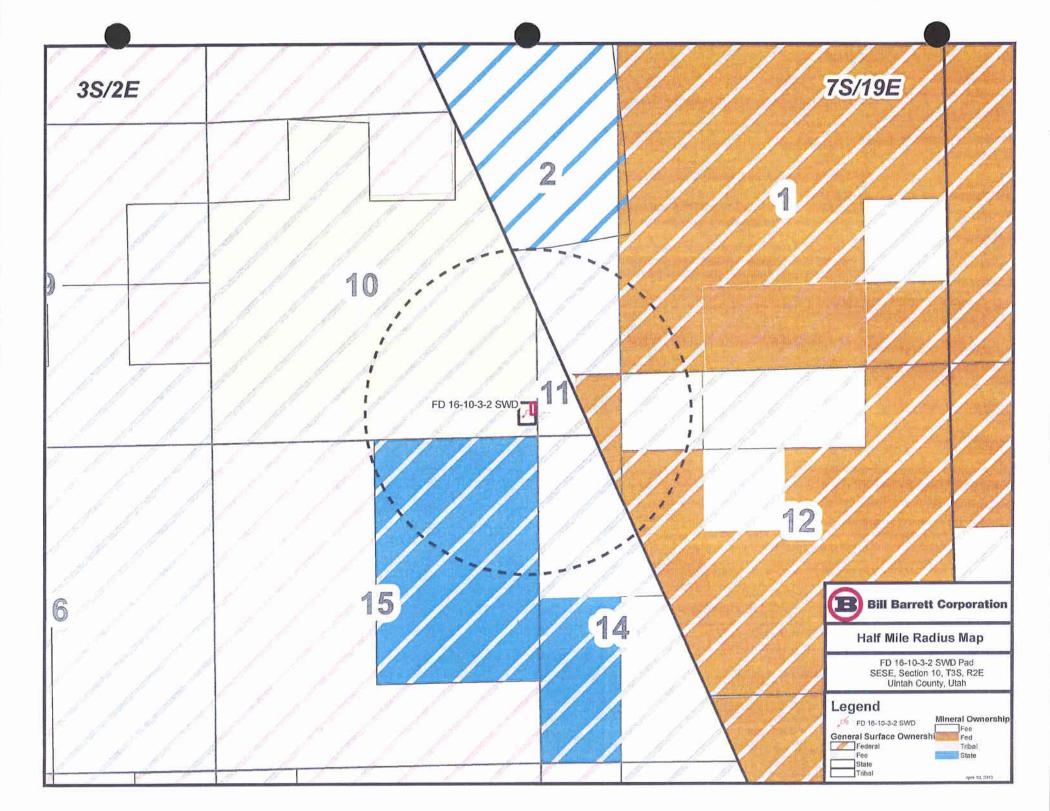
FD #16-10-3-2

- 1. The proposed disposal well FD #16-10-3-2 was drilled in October 2012 and perforated in November of 2012. It was perforated in the upper Green River formation, with a total perforated interval from 4366'-4658' MD.
- 2. There are no other wells within a ½ mile radius.
- 3. The injection zone is situated in the upper Green River formation. The injection zone is from 4366' to 4658' and had no significant gas shows while drilling.
- 4. The confining layers are interspersed within the injection zone as well as ample impermeable rock above and below the gross proposed perforated interval to insure the safety of the fresh water table, as well as the moderately saline zone. There is approximately 350' of shale and mudstone in the Uinta formation beginning at 3060', above the top injection perforation.
- 5. A water sample taken from the proposed injection interval in the subject well on November 3rd 2012 yielded a sample with calculated TDS of 29,078.
- 6. We believe the well is in ideal mechanical condition as it was recently drilled in October 2012 and has never been used as a producing well. A review of the cement bond log shows good bond throughout the injection zone and up to a depth of 2400' MD.
- 7. Notice was provided on January 17th, 2013 to all surface and mineral owners within ¼ mile of the well.
- 8. The requested maximum allowable injection pressure has been calculated as 1,182 psig based on a step rate test performed on November 29th, 2012. The proposed average injection pressure is calculated to be approximately 500 psig.









2.2

Copies of electrical or radioactive logs, including gamma ray logs, for the proposed well run prior to the installation of casing and indicating resistivity, spontaneous potential, caliper, and porosity.

BBC ran CBL/GR/CCL/TEMP which have been sent to the division for reference and should be in file.

2.3

A copy of a cement bond or comparable log run for the proposed injection well after casing was set and cemented.

The CBL is already on file with the division.

2.4

Copies of logs already on file with the division should be referenced, but need not be refiled

Logs are already on file with the division

2.5

A description of the casing or proposed casing program of the injection well and of the proposed method for testing the casing before use of the well.

Casing Strings									
Csg Des	OD (in)	Willen (libit)	Grade	Top Thread	Set Depth (ftXB)				
Conductor	20	94.00	H-40	Butt Weld	104.0				
Surface	9 5/8	36.00	J-55	ST&C	1,796.0				
Production	7	26.00	L-80	LT&C	5,689.0				

After the packer has been set the hole will be loaded with packer fluid and a pressure test will be conducted. It will be 1000psig for 30 minutes.

Bill Barrett Corporation

Downhole Well Profile

Well Name: FD 16-10-3-2 SWD

	43-047-53004	License #		Operator Bill Barrett Corporation	Govt Authority
Vell Configuration Type /ertical	Original KB Elevation (ft) 4,853.00			Regulatory Drilling Spud Date	Regulatory Rig Release Date
uface Legal Location ESE, Sec. 10, T3S, R2E			East/West Distance (ft) 150.0	East/West Reference FEL	Lst/Long Datum NAD 27
atitude (") 40° 13' 50.189" N		Basin Uinta	Field Name Fort Duchesne	County Uintah	State/Province UT

Wellheads							
ype							
Des	Make	Model	WP (psi)	Service	WP Top (psi)	Top Ring Gasket	Bore Min (in)

		Ve	ertica	l - Original	Hole, 1;	12/7/2012 9:41:36 AM	Casing Strings							
			S				Csg Des	OD (in)	Wt/Len (lb/ft)	Grade	To	op Thread	Set Depth (ftKB)
MD (ftK	TVD (ftKB	Incl	("/1 00f				Conductor	20	9.	4.00	H-40	Butt	Weld	104.0
B))	(°)	1)		Ver	rtical schematic (actual)	Surface	9 5/8	3	6.00	J-55	ST&	C	1,796.0
				1	1 1	2-1; Tubing Hanger; 7;	Production	7	2	6.00	80	LT&	С	5,689.0
100	-10	0.0	0.0		H E	3 000; -0.8-0.0; 0.85 2-3; Tubing Coated ID; 3	Perforation Summary							
360	23 9	0.1	0.0	100	H H	1/2; 2 992; -1 0-31 0;	Date	Top (ftKB)			Btm (ftKB)			Zone
1000	1640	0.4	0.0			31.98 2-4, Tubing Coated ID; 3 1/2; 2.992; 31.0-4,291.0; 4.259.99	11/2/2012 14:30		4,366.0		4,	367.0	(STG 1) U FREEN F Original F	RIVER,
1361	1,750 6	0.4	0,1			2-5; Cross Over 3-1/2" X -2-7/8"; 4 1/2, 2, 425; 4,291 0-4,291 6; 0.67	11/2/2012 14:30		4,379.0		4,3	380.0	(STG 1) (FREEN F Original F	RIVER,
1,000	17959	0.5	0.1	Ĺ		2-7; Packer 7" Hornet; 4 1/2; 2 441; 4,292.5-	11/2/2012 14:30		4,391.0		4,:	392.0	(STG 1) l	
4301	4 243 0	0.9	0.6			4,299 9; 7.40 2-8; Tubing Pup Joint; 4							FREEN F Original F	
1301	4 299 7	0.9	0.5			1/2; 2.441; 4,299.9- 4,306.1; 6.22	11/2/2012 14:30		4,404.0		4,4	405.0	(STG 1) l	JPPER
) ,,,,	4 306 9	0.9	0.5			2-9; 2.31 XN NIPPLE; 4 1/2; 2 310; 4,306,1- 4,307 0; 0.85							FREEN F Original F	
	43660	1.0	0.5	and a second		2-10; Wireline Guide; 4 1/2; 4,307.0-4,307.4;	11/2/2012 14:30		4,417.0		4,4	418.0	(STG 1) I FREEN F	RIVER,
1291	4,378.8	1.0	0.5			0.44	44/0/0040 4: 55						Original F	
1901	4,390 9	1.0	0.5				11/2/2012 14:30		4,433.0		4,4	434.0	(STG 1) U FREEN F Original F	RIVER,
sente	4,416.8	0.9	0.5				11/2/2012 14:30		4,443.0		4,4	444.0	(STG 1) I FREEN F	JPPER
EMIT	4 432.9	0.8	0.5		1	8							Original F	lole
6M28	4 442 7	0,8	0.5	To the second			11/2/2012 14:30		4,459.0		4,4	460.0	(STG 1) U FREEN F Original F	RIVER,
1.0010 4.001y	4 460 8	0,6	0.4				11/2/2012 14:30		4,481.0		4,4	482.0	(STG 1) (FREEN F Original F	RIVER,
# 144 W	4 504 7 4 532 0	0,9	0.4	1			11/2/2012 14:30		4,497.0		4,4	498.0	(STG 1) (FREEN F Original F	RIVER,
enern 43941	4 543 8 4 553 9	1,2	0.4				11/2/2012 14:30		4,531.0		4,:	532.0	(STG 1) I FREEN F Original F	RIVER,
4394 4394	45707 45759	1,5 1,5	1.0				11/2/2012 14:30		4,543.0		4,	544.0	(STG 1) I FREEN F Original F	RIVER,
4.)97.4 937.9	45877 46136	1.5 1.6	1.0				11/2/2012 14:30		4,553.0		4,	554.0	(STG 1) I FREEN F Original F	RIVER,
	4 631 7 4 645 8	1.6	1.0				11/2/2012 14:30		4,570.0		4,	571.0	(STG 1) I	JPPER RIVER,
	4,6579	1,6	1.0				11/2/2012 14:30		4,575.0		4,	576.0	Original I (STG 1) I FREEN F	JPPER RIVER,
1	56429	4.0	0.4										Original I	Hole
1,000,0	5,686 4 5 693 3	4.0	0.4		4 5 1									
L.,	5 680 3 VWW. p	4.0 peloto	n.cc	m '			Page 1/2					Ren	ort Printe	d: 12/7/2012
							. age 1/2					· · ch	orer inite	u. IZITIZUIZ

Bill Barrett Corporation

www.peloton.com

Downhole Well Profile

Well Name: FD 16-10-3-2 SWD

	43-047-53004	License #		Operator Bill Barrett Corporation	Govt Authority
Vell Configuration Type Vertical	Original KB Elevation (ft) 4,853.00			Regulatory Drilling Spud Date	Regulatory Rig Release Date
SESE, Sec. 10, T3S, R2E			East/West Distance (ft) 150.0	East/West Reference FEL	Lat/Long Datum NAD 27
atitude (°) 40° 13' 50,189" N			Field Name Fort Duchesne	County Uintah	State/Province UT

Report Printed: 12/7/2012

\vdash								1 (200								
		Ve	_	l - Original	Hole, 1	2/7/2012	9:41:38 AM	Perforation Summary								
			S					Date		J	Top (ftKB)	Btm (ftk	B)		Zone	
(ft.k B)		Incl (°)	(°/1 00f t)		Ve	rtical sche	ematic (actual)	11/2/2012 14:30			4,587.0		4,588.0	(STG 1) FREEN Original	RIVER,	
ii a	-10 239	0.0	0.0	×1 ×			2-1; Tubing Hanger; 7; 3.000; -0.8-0.0; 0.85 2-3; Tubing Coated ID; 3 1/2; 2.992; -1.0-31.0;	11/2/2012 14:30			4,613.0		4,614.0	(STG 1) FREEN Original	RIVER,	2
1007	104 0 1,652 8	0.4	0.0				31.98 2-4; Tubing Coated ID; 3 1/2; 2.992; 31.0-4,291.0; 4,259.99	11/2/2012 14:30			4,631.0		4,632.0	(STG 1) FREEN Original	RIVER,	
1,394	17506	0.4	0.1				2-5; Cross Over 3-1/2" X -2-7/8"; 4 1/2; 2 425; 4,291.0-4,291.6; 0.67 2-7; Packer 7" Hornet; 4	11/2/2012 14:30			4,645.0		4,646.0	(STG 1) FREEN Original	RIVER,	
4341	4 243 0 4 291 5	0.6	0.5				1/2; 2.441; 4.292,5- 4,299.9; 7.40 2-8; Tubing Pup Joint; 4 1/2; 2.441; 4.299.9-	11/2/2012 14:30			4,657.0		4,658.0	(STG 1) FREEN Original	RIVER,	
4300	4 299 7	0.9	0.5	3		3/	4,306.1; 6.22	Tubing - Production set	at A ?	30.	7.4ffKB on 11/	21/2012 00:00				
		0,5		1			2-9; 2,31 XN NIPPLE; 4		un Date		7.4ILKD OII 11/4	String Length (ft)		Cot Coath	(ALCO)	
)	4 306 9	0.9	0.5		F	1	- 1/2; 2 310; 4,306 1- 4,307 0; 0 85	Tubing - Production			/2012 00:00	Suring Cengus (ii)	4,308.25	Set Depth	Name of the second of the seco	4,307.
i jes	4,366.0	1,0	0.5	- 1		1	2-10; Wireline Guide; 4	Item Des	Jts	-	Make	Model	OD (in)	Wt (lb/ft)	Grade	Len (ft
	43788	1.0	0.5				1/2; 4,307.0-4,307.4; 0.44	Tubing Hanger	1	_			7			0.85
7,000	13.00		0.5					Compression Correction	1	-			7			-1.00
E-181	4 390 9	1,0	0.5					Tubing Coated ID	1			T&C Upset	3 1/2	9.30	J-55	31.98
4,467	4.403.7	0.9	0.5	100	And the second			Tubing Coated ID	13			T&C Upset	3 1/2	9.30	J-55	4,259
AME	4.416.8	0.9	0.5	to the state of				Cross Over 3-1/2" X 2- 7/8"	1				4 1/2			0.67
				1		5		2.31 X NIPPLE	1				4 1/2		SS	0.85
4907	4.442.7	0.8	0.5					Packer 7" Hornet	1	N	MILLER		4 1/2		NICK LE	7.40
****	4,480 8	0,6	0.4					Tubing Pup Joint	1	T			4 1/2	6,50	NICK LE	6.22
ile	4,496 9	0,8	0.4	-		-		2.31 XN NIPPLE	1	T			4 1/2		SS	0.88
+100	4 504 7	0.9	0.4					Wireline Guide	1	Ī			4 1/2		NICK LE	0.44
*100	45320	1.1	0.4			1		<des> on <dttmrun></dttmrun></des>	_	-			-		/aaaaa	
****	4,543.8	1.2	0.4						tun Date	е		String Length (ft)		Set Depth	(ftKB)	
4394	4 553 9	1.3	0.4					Item Des	Jts	T	Make	Model	OD (in)	Wt (lb/ft)	Grade	Len (ft
450	4 570 7	1.5	0.4							T						
4100	4.575.9	1.5	1.0	_												
KNO	4,587.7	1.5	1.0			de de										
Ann	46136	1,6	1.0			\$										
¥960	4,631 7	1,6	1.0	1		0										
* 340	4 645 8	1,6	1.0	1		CVIII AND										
inte	4 657 9	1,6	1.0	مىد												
	5 642 9	4.0	0.4	-												
200	5,666 4	4.0	0.4			AGA P										
119	5,693.3	4.0	0.4													

Page 2/2

2.6.

A statement as to the type of fluid to be used for injection, its source and estimated amounts to be injected daily.

The fluid that will be used for injection will include flowback water from wells and produced water from wells in the field. See section 2.7 for an analysis of the water. The estimated amount of daily injection is \sim 3,000 bbls per day.

2.7

Standard laboratory analyses of:

2.7.1. The fluid to be injected,

Below is a summary of the results from water analysis included in this section.

Produced Water Analysis Results

Well Name	Test Date	TDS (ppm)
Aurora Federal 15-28	6/1/2012	25,773
FD State 11-36	4/8/2012	23,004
Four Star Federal 7-32	3/6/2011	27,077

These are examples of the wells in East Bluebell that will be disposed of in this SWD.

Analytical Laboratory Report for: Bill Barrett



Account Representative: Jc Batty

Production Water Analysis

Listed below please find water analysis report from: Aurora, 15-28D

Lab Test Number		Sample Date
2012403495		06/01/2012
Specific Gravity:	1.018	
TDS:	25773	
pH:	7.10	
Cations		mg/L
Calcium as Ca ^{⁺⁺}		670
Magnesium as Mg ^{⁺⁺}		106
Sodium as Na [*]		7790
Iron as Fe ^{⁺⁺}		30.40
Potassium as K [⁺]		704.0
Barium as Ba [↔]		1.32
Strontium as Sr [™]		50.80
Manganese as Mn [⋯]		0.91
Anions		mg/L
Bicarbonate as HCO ₃		1220
Sulfate as SO ₄		500
Chloride as CI		14700
Omoriue as Oi		14700
Gases		mg/L
Carbon Dioxide as CO ₂		60
Hydrogen Sulfide as H ₂ S		0.0
2		0.0

Analytical Laboratory Report for: Bill Barrett



Account Representative: Jc Batty

Lab Test Number

0040400405

DownHole SAT[™] Scale Prediction @ 100 deg. F

Sample Date

2012403495	06/01/2012	15-28D	
Mineral Scale	Saturation Index	Momentary Excess (lbs/1000 bbls)	
Calcite (CaCO3)	8.58	3.13	
Strontianite (SrCO3)	1.51	1.70	
Anhydrite (CaSO4)	0.08	-2448.87	
Gypsum (CaSO4*2H2O)	0.10	-2164.14	
Barite (BaSO4)	5.93	1.86	
Celestite (SrSO4)	0.22	-245.07	
Siderite (FeCO3)	829.46	4.10	
Halite (NaCI)	0.00	-530211.81	
Iron sulfide (FeS)	0.00	-0.04	

Location

Interpretation of DHSat Results:

The Saturation Index is calculated for each mineral species independently and is a measure of the degree of supersaturation (driving force for precipitation) under the conditions modeled. This value ranges from 0 to infinity with 1.0 representing a condition of equilibrium where scale will neither dissolve nor precipitate. Values less than 1.0 are undersaturated and values greater than 1.0 are supersaturated. The Momentary excess is a measure of how much scale would have to precipitate to bring the system back to a non-scaling condition. This value ranges from negative (dissolving) to positive (precipitating) values. The Momentary Excess represents the amount of scale possible while the Saturation Level represents the probability that scale will form.

Analytical Laboratory Report for: ELK PRODUCTION, LLC



Account Representative: Batty, Jc

Production Water Analysis

Listed below please find water analysis report from: Roosevelt Unit, State 11-36-6-19

Lab Test Number		Sample Date	
2012402094		04/08/2012	
Specific Gravity:	1.016		
TDS:	23004		
pH:	7.10		
Cations		mg/L	
Calcium as Ca ^{⁺⁺}		407	
Magnesium as Mg ^{⁺⁺}		56.40	
Sodium as Na ⁺		7670	
Iron as Fe ^{⁺⁺}		15.80	
Potassium as K [⁺]		505.0	
Barium as Ba		2.94	
Strontium as Sr ^{⁺⁺}		26.60	
Manganese as Mn		0.71	
Zinc as Zn ⁺⁺		0.00	
Anions		mg/L	
Bicarbonate as HCO ₃		1220	
Sulfate as SO ₄		1100	
Chloride as CI		12000	
Gases		mg/L	
Carbon Dioxide as CO ₂		50	
Hydrogen Sulfide as H ₂ S		1.0	
2		1.0	

Analytical Laboratory Report for: ELK PRODUCTION, LLC



Account Representative: Batty, Jc

DownHole SAT[™] Scale Prediction @ 100 deg. F

Lab Test Number	Sample Date	Location	
2012402094	04/08/2012	State 11-36-6-19	
Mineral Scale	Saturation Index	Momentary Excess (lbs/1000 bbls)	
Calcite (CaCO3)	5.38	2.93	
Strontianite (SrCO3)	0.90	-0.51	
Anhydrite (CaSO4)	0.11	-2280.71	
Gypsum (CaSO4*2H2O)	0.16	-1981.81	
Barite (BaSO4)	35.85	4.86	
Celestite (SrSO4)	0.32	-109.79	
Siderite (FeCO3)	465.97	4.16	
Halite (NaCl)	0.00	-527667.63	
Iron sulfide (FeS)	17.29	1.17	

Interpretation of DHSat Results:

The Saturation Index is calculated for each mineral species independently and is a measure of the degree of supersaturation (driving force for precipitation) under the conditions modeled. This value ranges from 0 to infinity with 1.0 representing a condition of equilibrium where scale will neither dissolve nor precipitate. Values less than 1.0 are undersaturated and values greater than 1.0 are supersaturated. The Momentary excess is a measure of how much scale would have to precipitate to bring the system back to a non-scaling condition. This value ranges from negative (dissolving) to positive (precipitating) values. The Momentary Excess represents the amount of scale possible while the Saturation Level represents the probability that scale will form.

Analytical Laboratory Report for: **ELK RESOURCES INC.**



Account Representative: Batty, Jc

Production Water Analysis

Listed below please find water analysis report from: Aurora Unit, Aurora 7-32

Lab Test Number

Sample Date

2011401497

03/06/2011

[
]

Specific Gravity: 1.019

TDS:

27077

pH:

7.00

Cations:	mg/L	as:
Calcium	0.00	(Ca ⁺⁺)
Magnesium	293	(Mg ⁺⁺)
Sodium	6440	(Na ⁺)
Iron	103.00	(Fe ⁺⁺)
Potassium	98.6	(K ⁺)
Barium	1.68	(Ba ^{††})
Strontium	36.50	(Sr [→])
Manganese	4.34	(Mn ⁺⁺)
Anions:	mg/L	as:
Bicarbonate	1710	(HCO,)
Sulfate	590	(SO ₄)
Chloride	17800	(CI)
Gases:		
Carbon Dioxide	20	(CO ₂)
Hydrogen Sulfide	1.0	(H ₂ S)

Analytical Laboratory Report for:



ELK RESOURCES INC.

Account Representative:

Batty, Jc

DownHole SAT[™] Scale Prediction @ 180 deg. F

[]			
Lab Test Number	Sample Date	Location	
2011401497	03/06/2011	Aurora 7-32	
Mineral Scale	Saturation Index	Momentary Excess (lbs/1000 bbls)	
Calcite (CaCO3)	0.00	-17.78	Charles Control of the Control of th
Strontianite (SrCO3)	0.87	-1.20	
Anhydrite (CaSO4)	0.00	-1969.34	
Gypsum (CaSO4*2H2O)	0.00	-2491.54	
Barite (BaSO4)	1.71	1.18	
Celestite (SrSO4)	0.15	-284.13	
Siderite (FeCO3)	10586.94	7.62	
Halite (NaCl)	0.00	-605761.44	
Iron sulfide (FeS)	57.29	1.31	

Interpretation of DHSat Results:

The Saturation Index is calculated for each mineral species independently and is a measure of the degree of supersaturation (driving force for precipitation) under the conditions modeled. This value ranges from 0 to infinity with 1.0 representing a condition of equilibrium where scale will neither dissolve nor precipitate. Values less than 1.0 are undersaturated and values greater than 1.0 are supersaturated. The Momentary excess is a measure of how much scale would have to precipitate to bring the system back to a non-scaling condition. This value ranges from negative (dissolving) to positive (precipitating) values. The Momentary Excess represents the amount of scale possible while the Saturation Level represents the probability that scale will form.

Analytical Laboratory Report for: **ELK RESOURCES INC.**



Account Representative: Batty, Jc

Production Water Analysis

Listed below please find water analysis report from: Aurora Unit, Aurora 7-32

 Lab Test Number
 Sample Date

 2011401498
 03/16/2011

[
]

Specific Gravity: 1.010

TDS:

13234

pH:

7.00

Cations:	mg/L	as:
Calcium	253	(Ca [↔])
Magnesium	33.90	(Mg [↔])
Sodium	3810	(Na [†])
Iron	58.20	(Fe [↔])
Potassium	110.0	* (K [†])
Barium	5.41	(Ba ⁺⁺)
Strontium	15.10	(Sr ^{**})
Manganese	0.95	(Mn [↔])
Anions:	mg/L	as:
Bicarbonate	2440	(HCO,)
Sulfate	307	(SO ₄ ")
Chloride	6200	(CI)
Gases:		,
Carbon Dioxide	50	(CO ₂)
Hydrogen Sulfide	1.0	(H ₂ S)

Analytical Laboratory Report for:

ELK RESOURCES INC.



Account Representative: Batty, Jc

[]			
Lab Test Number	Sample Date	Location	
2011401498	03/16/2011	Aurora 7-32	
Mineral Scale	Saturation Index	Momentary Excess (lbs/1000 bbls)	
Calcite (CaCO3)	11.31	8.20	
Strontianite (SrCO3)	0.95	-0.43	
Anhydrite (CaSO4)	0.05	-1278.43	
Gypsum (CaSO4*2H2O)	0.05	-1621.22	
Barite (BaSO4)	6.77	7.82	
Celestite (SrSO4)	0.08	-235.22	
Siderite (FeCO3)	14616.28	10.44	
Halite (NaCl)	0.00	-580250.56	
Iron sulfide (FeS)	69.85	1.45	

Interpretation of DHSat Results:

The Saturation Index is calculated for each mineral species independently and is a measure of the degree of supersaturation (driving force for precipitation) under the conditions modeled. This value ranges from 0 to infinity with 1.0 representing a condition of equilibrium where scale will neither dissolve nor precipitate. Values less than 1.0 are undersaturated and values greater than 1.0 are supersaturated. The Momentary excess is a measure of how much scale would have to precipitate to bring the system back to a non-scaling condition. This value ranges from negative (dissolving) to positive (precipitating) values. The Momentary Excess represents the amount of scale possible while the Saturation Level represents the probability that scale will form.

Analytical Laboratory Report for:



Account Representative:

Scale Inhibitor Residual Analyses

Lab Test	Lease	Sample	Sample	Sample Chemical Residual						
Number	Name	Location	Date	Used	(ppm)					
2011401499 2011401500		Aurora 7-32 Aurora 7-32	3/6/11 3/16/11	SCALESOR B-3 SCALESOR B-3	84.33					

Comments:

Note: These data are calculated from measurements of total phosphorous and may be artificifically high due to additional sources of phosphorous that may be present in the sample which can be naturally occurring or from other chemical products. Reported values of "0" indicate actual value is below detectable limits.

R649-5

2.7.2

The fluid in the formation into which the fluid is being injected:

Fluid samples taken on 11/3/12 from the formation to be injected are detailed on the following page.

Multi-Chem Analytical Laboratory

1553 East Highway 40 Vernal, UT 84078

nits of Measurement: Standard



Water Analysis Report

Production Company: BILL BARRETT
Well Name: 16-10-3-2 SWD
Sample Point: Sample 1 1215 PM

Sample Date: 11/3/2012 Sample ID: WA-227013 Sales Rep: Chad Horrocks
Lab Tech: Layne Wilkerson

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics	
Test Date:	11/5/2012
System Temperature 1 (°F):	100.00
System Pressure 1 (psig):	60.0000
System Temperature 2 (°F):	70.00
System Pressure 2 (psig):	14.7000
Calculated Density (g/ml):	1.018
pH:	7.60
Calculated TDS (mg/L):	29078.08
CO2 in Gas (%):	
Dissolved CO ₂ (mg/L)):	0.00
H ₂ S in Gas (%):	
H2S in Water (mg/L):	3.00

Analysis @ Properties in Sample Specifics										
Cations	mg/L	Anions	mg/L							
Sodium (Na):	10103.32	Chloride (CI):	11000.00							
Potassium (K):	83.00	Sulfate (SO4):	610.00							
Magnesium (Mg):	1.60	Bicarbonate (HCO3):	7271.00							
Calcium (Ca):	7.37	Carbonate (CO3):								
Strontium (Sr):		Acetic Acid (CH3COO)								
Barium (Ba):	1.00	Propionic Acid (C2H5COO)								
Iron (Fe):	0.70	Butanoic Acid (C3H7COO)								
Zinc (Zn):	0.01	Isobutyric Acid ((CH3)2CHCOO)								
Lead (Pb):	0.04	Fluoride (F):								
Ammonia NH3:		Bromine (Br):								
Manganese (Mn):	0.04	Silica (SiO2):								

Notes:

(PTB = Pounds per Thousand Barrels)

		,							(1 10 - 1 ounds per modsand banels)								
		45000	cium oonate	Bariun	n Sulfate		ron Ilfide		ron oonate		psum 4-2H2O	111000	estite SO4		alite aCl		Zinc ulfide
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	РТВ
70.00	14.00	0.38	3.70	1.06	0.54	2.01	0.38	1.50	0.49	0.00	0.00	0.00	0.00	0.00	0.00	7.88	0.00
73.00	19.00	0.38	3.67	1.03	0.54	1.97	0.38	1.51	0.49	0.00	0.00	0.00	0.00	0.00	0.00	7.80	0.00
76.00	24.00	0.38	3.68	1.00	0.54	1.93	0.38	1.52	0.49	0.00	0.00	0.00	0.00	0.00	0.00	7.72	0.00
80.00	29.00	0.38	3.72	0.97	0.53	1.90	0.38	1.54	0.49	0.00	0.00	0.00	0.00	0.00	0.00	7.66	0.00
83.00	34.00	0.39	3.77	0.94	0.53	1.88	0.38	1.56	0.49	0.00	0.00	0.00	0.00	0.00	0.00	7.59	0.00
86.00	39.00	0.40	3,83	0.91	0.52	1.86	0.38	1.58	0.49	0.00	0.00	0.00	0.00	0.00	0.00	7.53	0.00
90.00	44.00	0.41	3.89	0.88	0.52	1.84	0.38	1.61	0.50	0.00	0.00	0.00	0.00	0.00	0.00	7.47	0.00
93.00	49.00	0.42	3.95	0.85	0.51	1.82	0.38	1.63	0.50	0.00	0.00	0.00	0.00	0.00	0.00	7.41	0.00
96.00	54.00	0.44	4.02	0.83	0.51	1.80	0.38	1.65	0.50	0.00	0.00	0.00	0.00	0.00	0.00	7.36	0.00
100.00	60.00	0.45	4.09	0.80	0.50	1.78	0.38	1.67	0.50	0.00	0.00	0.00	0.00	0.00	0.00	7.30	0.00
			hydrate 4~0.5H2 O		ydrate aSO4		lcium Joride		Zinc bonate		ead ulfide		Mg licate		a Mg licate	Si	Fe licate
Carried to	THE PARK STATES	61	DOTE	01	a marine and	-01	- Carrie	and at the same	THE PERSON NAMED IN	100 M	(C10) 1700	500	The Real Property lies	2400	THE PERSON NAMED IN		1

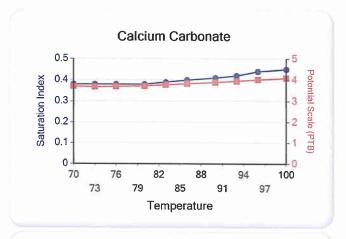
			CaSO4~0.5H2 CaSO4		Fluoride Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate				
Temp (°F)		SI	PTB	SI	РТВ	SI	PTB	SI	PTB	SI	PTB	SI	РТВ	SI	PTB	SI	РТВ
70.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.88	0.02	0.00	0.00	0.00	0.00	0.00	0.00
73.00	19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.76	0.02	0.00	0.00	0.00	0.00	0.00	0.00
76.0	24.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.64	0.02	0.00	0.00	0.00	0.00	0.00	0.00
80.08	29.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.53	0.02	0.00	0.00	0.00	0.00	0.00	0.00
83.0	34.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.42	0.02	0.00	0.00	0.00	0.00	0.00	0.00
86.0	39.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.32	0.02	0.00	0.00	0.00	0.00	0.00	0.00
90.0	44.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.22	0.02	0.00	0.00	0.00	0.00	0.00	0.00
93.0	49.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.12	0.02	0.00	0.00	0.00	0.00	0.00	0.00
96.0	54.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
100.0	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.93	0.02	0.00	0.00	0.00	0.00	0.00	0.00

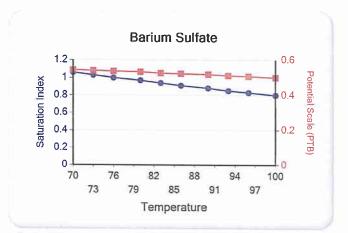


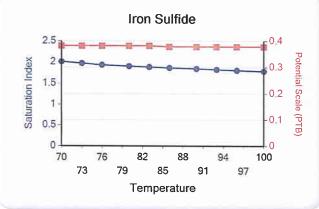
Water Analysis Report

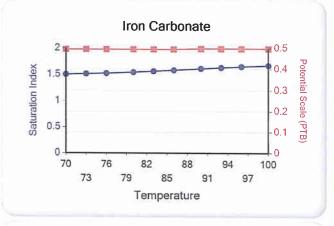
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc

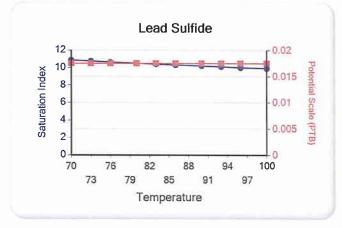
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Lead Sulfide

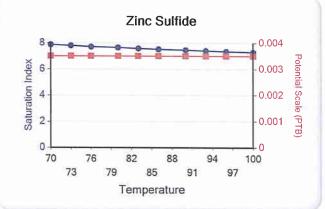












Excellence

Ethics

R649-5

2.7.3

The compatibility of the fluids:

Fluid samples taken on 11/3/12 from the formation to be injected into are detailed on the following page.

Multi-Chem Analytical Laboratory

1553 East Highway 40 Vernal, UT 84078

nits of Measurement: Standard



A HALLIBURTON SERVICE

Water Analysis Report

Production Company: **BILL BARRETT** Well Name: 16-10-3-2 Sample Point: Swab Unit run 31 Sample Date: 11/3/2012 Sample ID:

WA-227075

Sales Rep: Chad Horrocks Lab Tech: Layne Wilkerson

> Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Test Date:	11/6/2012
System Temperature 1 (°F):	300.00
System Pressure 1 (psig):	1300.0000
System Temperature 2 (°F):	70.00
System Pressure 2 (psig):	14.7000
Calculated Density (g/ml):	1.035
pH:	9.52
Calculated TDS (mg/L): CO2 in Gas (%):	55721.89
Dissolved CO2 (mg/L)):	0.00
H2S in Gas (%): H2S in Water (mg/L):	100.00

Analysis @ Properties in Sample Specifics									
Cations	mg/L	Anions	mg/L						
Sodium (Na):	17866.29	Chloride (CI):	16000.00						
Potassium (K):	100.00	Sulfate (SO ₄):	560.00						
Magnesium (Mg):	43.00	Bicarbonate (HCO ₃):	20740.00						
Calcium (Ca):	349.00	Carbonate (CO ₃):							
Strontium (Sr):		Acetic Acid (CH3COO)							
Barium (Ba):	2.40	Propionic Acid (C2H5COO)	•••••						
Iron (Fe):	57.00	Butanoic Acid (C3H7COO)							
Zinc (Zn):	0.60	Isobutyric Acid ((CH3)2CHCOO)							
Lead (Pb):		Fluoride (F):							
Ammonia NH3:	and deposit of the second second second	Bromine (Br):							
Manganese (Mn):	3.20	Silica (SiO2):							

Notes:

(PTB = Pounds per Thousand Barrels)

			cium oonate	Bariun	n Sulfate		ron ılfide		ron conate		psum 04-2H2O		estite SO4		alite IaCl	THE STREET	inc Ifide
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	РТВ	SI	РТВ	SI	РТВ
70.00	14.00	3.64	305.42	0.91	1.25	6.50	31.45	4.38	41.45	0.00	0.00	0.00	0.00	0.00	0.00	12.86	0.31
95.00	157.00	3.67	305.42	0.69	1.14	6.27	31.45	4.50	41,45	0.00	0.00	0.00	0.00	0.00	0.00	12.32	0.31
121.00	300.00	3.71	305.43	0,50	0.98	6.10	31.45	4.61	41.45	0.00	0.00	0.00	0.00	0.00	0.00	11.86	0.31
146.00	443.00	3.76	305.43	0.36	0.80	5.98	31.45	4.70	41.45	0.00	0.00	0.00	0.00	0.00	0.00	11.46	0.31
172.00	585.00	3.81	305.44	0.24	0.61	5.91	31.45	4.79	41.45	0.00	0.00	0.00	0.00	0.00	0.00	11.12	0.31
197.00	728.00	3.88	305.45	0.16	0.43	5.87	31,45	4.85	41.45	0.00	0.00	0.00	0.00	0.00	0.00	10.83	0.31
223.00	871.00	3.95	305.45	0.09	0.28	5.86	31.45	4.91	41.45	0.00	0.00	0.00	0.00	0.00	0.00	10.57	0.31
248.00	1014.00	4.04	305.46	0.05	0.15	5.87	31.45	4.96	41,45	0.00	0.00	0.00	0.00	0.00	0.00	10.35	0.31
274.00	1157.00	4.13	305.47	0.02	0.05	5.91	31.45	5.00	41.45	0.00	0.00	0.00	0.00	0.00	0.00	10.15	0.31
300.00	1300.00	4.23	305.47	0.00	0.00	5.96	31.45	5.03	41.45	0.00	0.00	0.00	0.00	0.00	0.00	9.98	0.31
			ihydrate		ydrate		licium	100000000000000000000000000000000000000	Zinc		_ead		Mg		a Mg		Fe

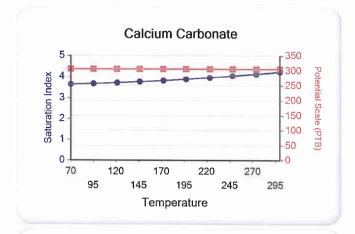
			Hemihydrate CaSO4~0.5H2 O		CaSO4 [~] 0.5H2		CaSO4 [~] 0.5H2		ydrate SO4		lcium oride		inc conate		ead ulfide		/lg cate	-	Mg icate		Fe icate
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	РТВ	SI	РТВ	SI	РТВ				
70.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.68	0.40	15.08	0.16	0.00	0.00	0.00	0.00	0.00	0.00				
95.00	157.00	0.00	0.00	0.00	0.00	0,00	0.00	2,03	0.40	14.22	0.16	0.00	0.00	0.00	0.00	0.00	0.00				
121.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	2.32	0.40	13.48	0.16	0.00	0.00	0.00	0.00	0.00	0.00				
146.00	443.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	0.40	12.84	0.16	0.00	0.00	0.00	0.00	0.00	0.00				
172.00	585.00	0.00	0.00	0.00	0.00	0.00	0,00	2.78	0.40	12.29	0.16	0.00	0.00	0.00	0.00	0.00	0.00				
197.00	728.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0.40	11.80	0.16	0.00	0.00	0.00	0.00	0.00	0.00				
223.00	871.00	0.00	0.00	0.00	0.00	0.00	0.00	3.08	0.40	11.38	0.16	0.00	0.00	0.00	0.00	0.00	0.00				
248.00	1014.00	0.00	0.00	0.00	0.00	0.00	0.00	3.19	0.40	11.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00				
274.00	1157.00	0.00	0.00	0.00	0.00	0.00	0.00	3,26	0.40	10.67	0.16	0.00	0.00	0.00	0.00	0.00	0.00				
300.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	3.31	0.40	10.37	0.16	0.00	0.00	0.00	0.00	0.00	0.00				

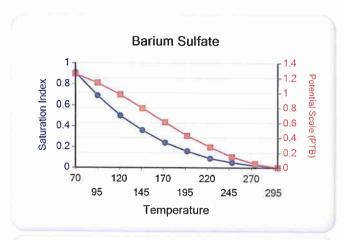


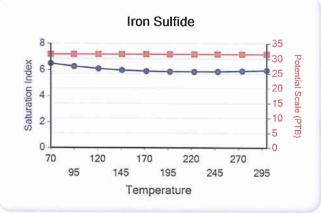
Water Analysis Report

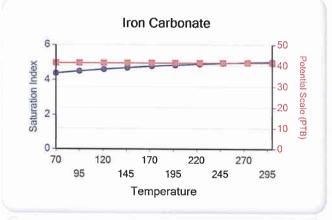
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide

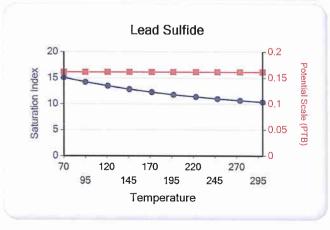
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide

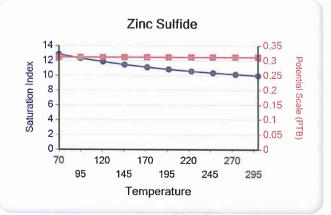










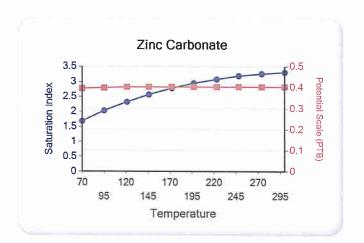


Excellence

1553 East Highway 40 Vernal, UT 84078



Water Analysis Report



R649-5

2.8.

The proposed average and maximum injection pressures.

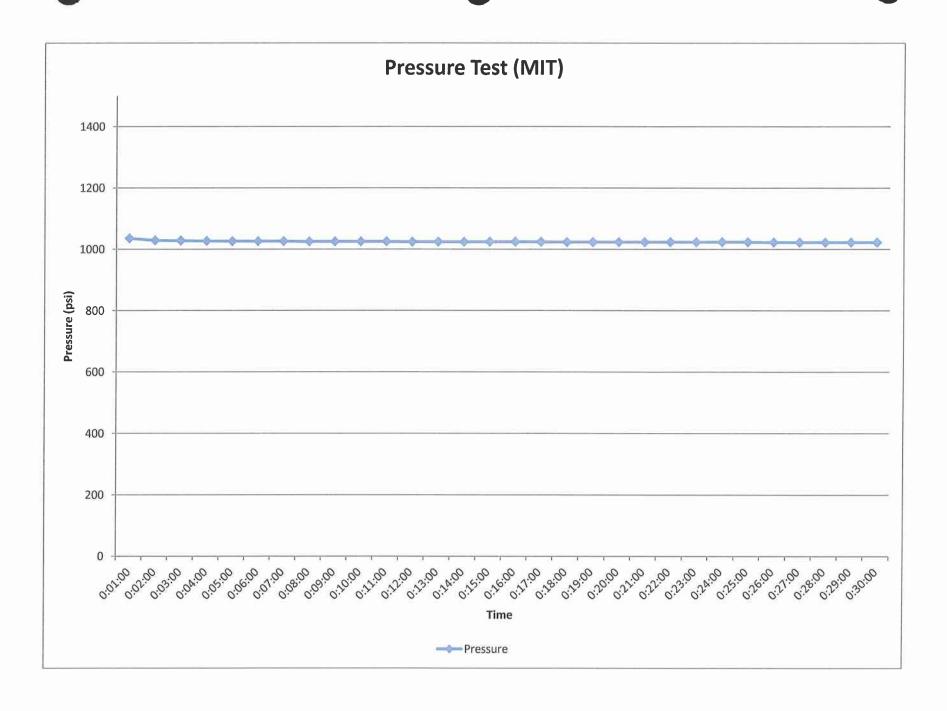
The proposed average injection pressure is \sim 500psig. The requested maximum injection pressure is 1,182psig, the highest surface pressure recorded with no fracture parting pressure observed during the step rate test.

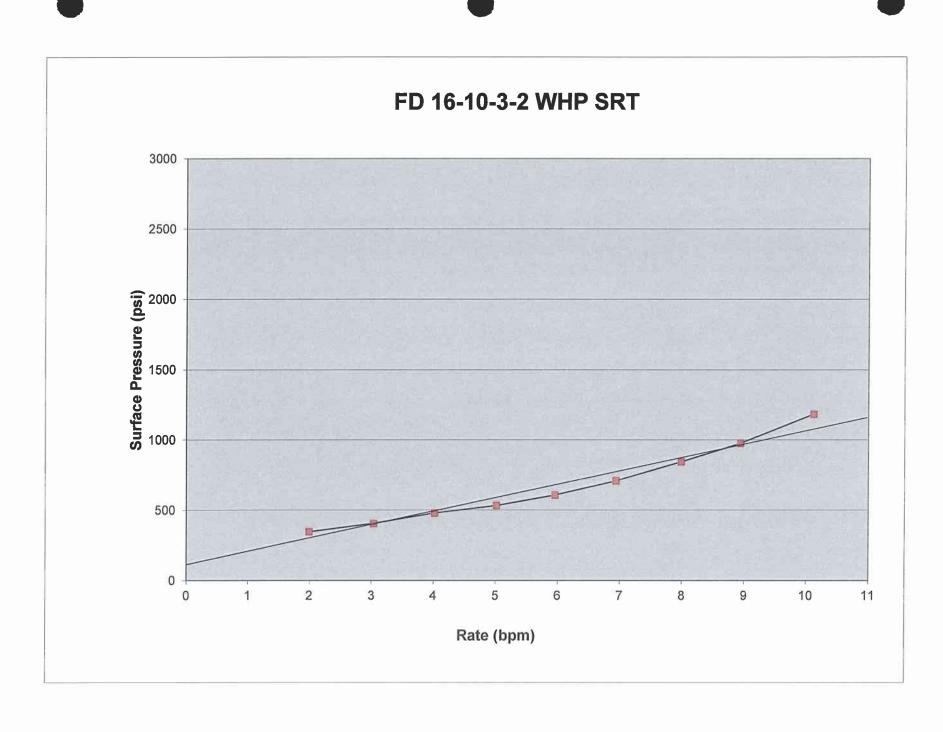
Evidence and data to support a finding that the proposed injection well will not initiate fractures through the overlying strata or a confining interval that could enable the injected fluid or formation fluid to enter any fresh water strata:

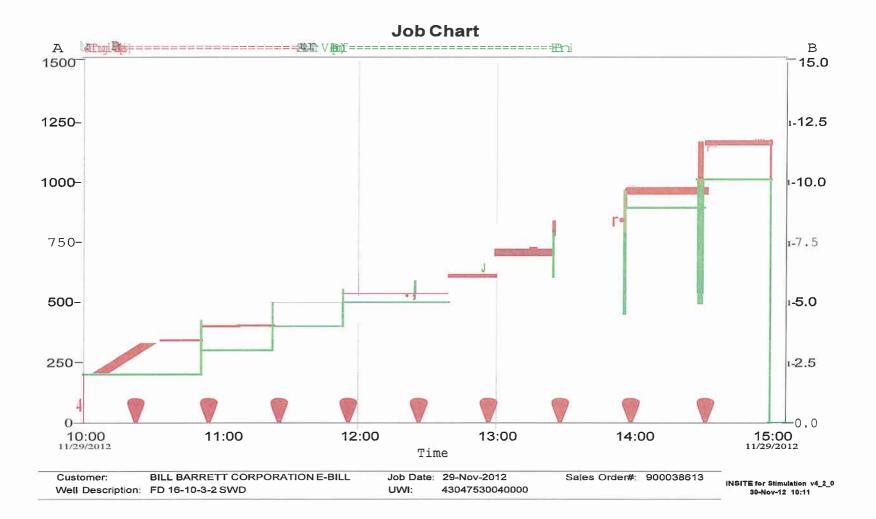
Please refer to the following pages.

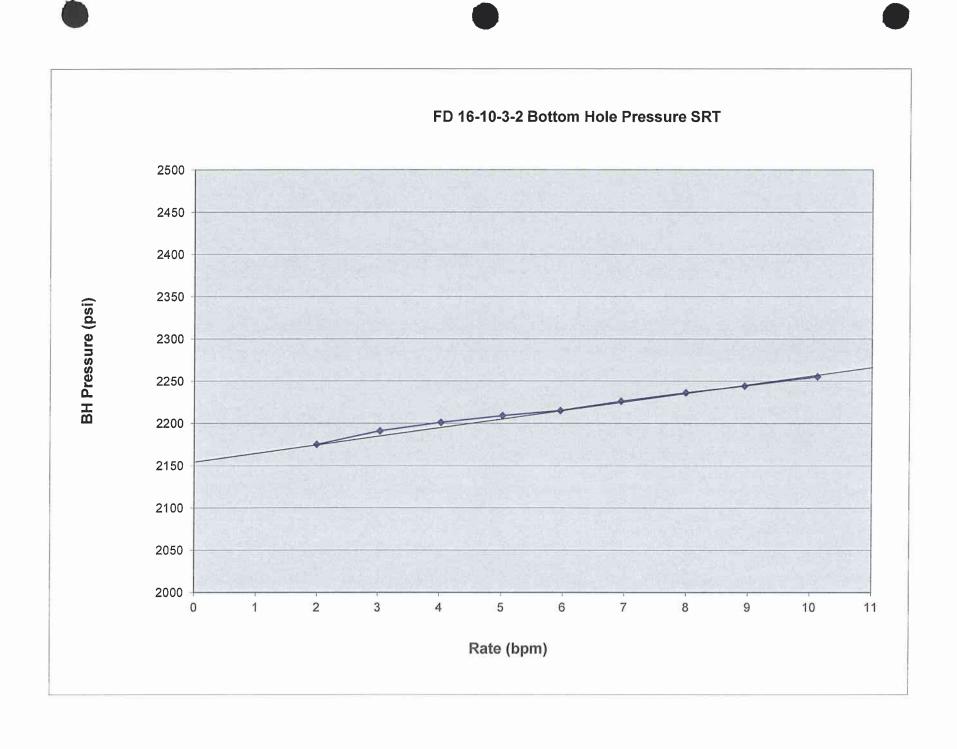
4.0 JOB LOG

Time	Rate	Volume	Pn	nps	Press	. (PSI)	Job Description / Remarks				
	bpm	bbl	Т	С	Tbg	Csg					
0600							C.AJLED OUT				
0800							ON LOCATION				
0805							PRE RIGUP S.A.FETY HUDDLE				
0810							RIG UP				
0945							PRE JOB S.A.FETY MEETING				
0955					6,000		PRIME & PRESSURE TEST				
1000		0			69		START JOB- LOAD \NELL				
1020	2.0	38			300		START 2 BPM STEP				
1050	2.0	97			346		END 2 BPM STEP				
1052	3.0	102			402		START 3 BPM STEP				
1122	3.0	192			406		END 3 BPM STEP				
1123	4.0	196			474		START 4 BPM STEP				
1153	4.0	316			478	-	END 4 BPM STEP				
1153	5.0	318			540		START 5 BPM STEP				
1223	5.0	468			530		END 5 BPM STEP				
1224	6.0	471			619		START 6 BPM STEP				
1254	5.9	649			608		END 6 BPM STEP				
1254	6.9	653			708		START 7 BPM STEP				
1324	6.9	861			719		END 7 BPM STEP				
1325	8.0	867			834		START 8 BPM STEP				
1355	8.0	1'107			844		END 8 BPM STEP				
1356	8.9	1'117			966		START 9 BPM STEP				
1426	8.9	1,385			980		END 9 BPM STEP				
1428	9.9	1,401			1,128		START 10 BPM STEP				
1458	10.1	1,700			1,168		END 10 BPM STEP				
1459	10.1	1,703			1,152		SHUT DOVVN				
1459					340		ISIP				
		<u> </u>									
			<u> </u>								
							ALL RATES AND PRESSURES DIRECTED BY CUSTOMER REP.				
			L	Ш			SUMMARY				
							HHP 67 FG #DIV/0!				
							AVGRT. 5.0 BPM MAXRT. 10.1 BPM				
							AVG PRESS. 550 PSI MAX PRESS. 1,180 PSI				
<u> </u>							TOTALLOAD 71,568 GAL 1704.0 BBL				









R649-5

2.10

Appropriate geological data on the injection interval with confining beds clearly labeled:

Information provided in other sections of application. Please refer to sections that follow: 2.10.1, 2.10.2, 2.10.3.

2.10.1

Nearby Underground Sources of Drinking Water, including the geologic formation name:

U.S. Geological Survey, Water-Resources Investigations Report 92-4161 indicates that the primary source of underground drinking water in the area of the proposed disposal wells is the Duchesne River-Uinta aquifer and to a lesser extent, Quaternary alluvium that is generally less than 50 feet thick. The proposed injection interval in the upper Green River formation is within the Parachute Creek confining unit which underlies the Duchesne River-Uinta aquifer. According to the State of Utah Division of Water Rights (http://www.waterrights.utah.gov/), there are no water source wells within at least two miles of the proposed injection well. The average depth of water wells drilled in the 3S-2E township is 60 feet with the deepest being 200 feet deep.

State of Utah, Department of Natural Resources, Technical publication No. 92, (Howells, et al. 1987) indicates that the moderately saline groundwater interface is approximately +3200′ subsea in this area which would equate to a measured depth of 1653′ in the 16-10-3-2 wellbore, well above the Green River formation top of +610′ subsea .

2.10.2

Lithologic descriptions, thicknesses, depths, water quality, and lateral extent

Quaternary Alluvium and Eolian Deposits: Surface to less than 50 feet in the FD 16-10-3-2 SWD area.

Wells in the area are spud in to mixed alluvium and eolian deposits of Holocene age. These deposits consist of unconsolidated alluvial mud, silt, and sand mixed with windblown sand and silt.

Duchesne River and Uinta Formations: Estimated 50 feet to 4,252 feet in the FD 16-10-3-2 SWD area.

The Eocene Duchesne River and Uinta Formations consist of yellowish brown to moderate red sandstones, light-gray calcareous mudstones and light brown to brown siltstones and sandstones. Individual siltstone and sandstone beds are discontinuous, have limited areal extent (typically < 40 acres) and are isolated from each other by low permeability calcareous mudstones. These formations were deposited in fluvial and flood plain environments. The siltstone and sandstone beds were deposited in fluvial channels and are more abundant in the lower portion of the formation. The intervening calcareous mudstones were deposited in flood plain environments. The lower contact of the Duchesne River Formation is interfingered with the Uinta Formation in this area. The lower portion of the Uinta Formation is transitional into lacustrine deposits in the central portion of the Uinta Basin.

Green River Formation: Estimated 4,252 feet to 8,500 feet in the FD 16-10-3-2 SWD area.

The Green River Formation (Eocene) is a complex mixture of clastics, carbonates and organic rich claystones deposited in an alluvial to lacustrine depositional system. A complex interfingering of alluvial, fluvial, marginal-lacustrine and lacustrine sediments was produced by significant lake level fluctuations caused by tectonic activity and climatic changes. The Green River Formation is subdivided into four members which in ascending order are: Douglas Creek Member, Garden Gulch Member, Parachute Creek Member and Evacuation Creek Member.

• The Douglas Creek Member consists of light gray alternating beds of calcareous sandstone and dark gray to brown brittle shale with minor amounts of oil shale, dolomite and limestone. Deposition took place in a marginal lacustrine environment. Three major facies are recognized in the Douglas Creek Member: fluvial deltaic, mudflat-lagoon and barrier-beach. The fluvial-deltaic deposits contain channel sandstones that fine upwards from medium to very coarse grained sands at their base to very fine grained sands interbedded with siltstones and shales at the top. The intra channel deposits consist of floodplain shales and claystones. The mudflat-lagoon sediments are characterized by interbedded shale, and siltstone with calcareous and dolomitic mudstones. The sediments were deposited in low energy areas protected from waves and isolated from major clastic input. The barrier-beach deposits are characterized by upward coarsening sequences. The lower portion of the sequences consist of gray to dark gray, laminated silty shale, which grade upward into light gray very fine to fine grained sandstone in

the upper portion of the sequences. Ooids and carbonate coated quartz are also common in the upper portions of the sequences.

- The Garden Gulch Member directly overlies the Douglas Creek Member and consists primarily of dark colored shales and very fine grained sandstones. Depositional environments and facies were similar to those of the Douglas Creek Member, but dominated primarily by lacustrine processes. Shale intervals are thicker than those of the Douglas Creek Member and organic rich.
- The Parachute Creek Member directly overlies the Garden Gulch Member and consists of a thick succession of dark brown, dark gray, light green and red shales with occasional fine grained sandstones. The shales were deposited in the deeper portions of the open lacustrine environment and the sandstones were deposited in the shallower marginal lacustrine environments. The Parachute Creek Member contains the most organic rich oil shales, including the Mahogany Oil Shale Zone.
- The Evacuation Creek Member directly overlies the Parachute Creek Member and is overlain by the Uinta Formation. The Evacuation Creek Member is composed primarily of light gray-green shale, tan marl and interbedded thin brown sandstones. The upper portion of the Evacuation Creek Member contains the informally named "Birds Nest" zone. The Birds Nest was deposited during a regressive lacustrine phase. The lake waters in the deeper portion of the lake became concentrated in salts, primarily sodium bicarbonate during this regressive phase. Nahcolite was deposited in the marl sediments in the form as nodules as the salty waters were expelled during early diagenesis. Percolating ground waters subsequently dissolved the nacholite nodules to form the Birds Nest Aquifer in the uppermost portion of the Green River Formation. The Birds Nest Aquifer is not present in the FD 16-10-3-2 SWD area.

Wasatch Formation: Estimated 8,500 feet to 11,300 feet in the FD 16-10-3-2 SWD area.

The Wasatch Formation (Paleocene - Eocene) consists of poorly sorted variegated mudstones and siltstones in shades of red, green and gray interbedded with beds and lenses of sandstone, conglomerate and minor carbonate deposits. Sandstones are very light brown to gray, irregularly bedded and are fine to medium grained. Conglomeratic sandstones often containing black chert and varicolored quartzite pebbles commonly occur at the base of sand bodies. Wasatch deposition took place in mixed fluvial to lacustrine depositional environments. The Wasatch Formation interfingers with and in places is time equivalent to the Green River Formation. The Wasatch sandstones and carbonates in the FD 16-10-3-2 SWD area are productive of natural gas and oil.

Mesaverde Formation: Estimated 11,300 feet to 12,025 feet in the FD 16-10-3-2 SWD area.

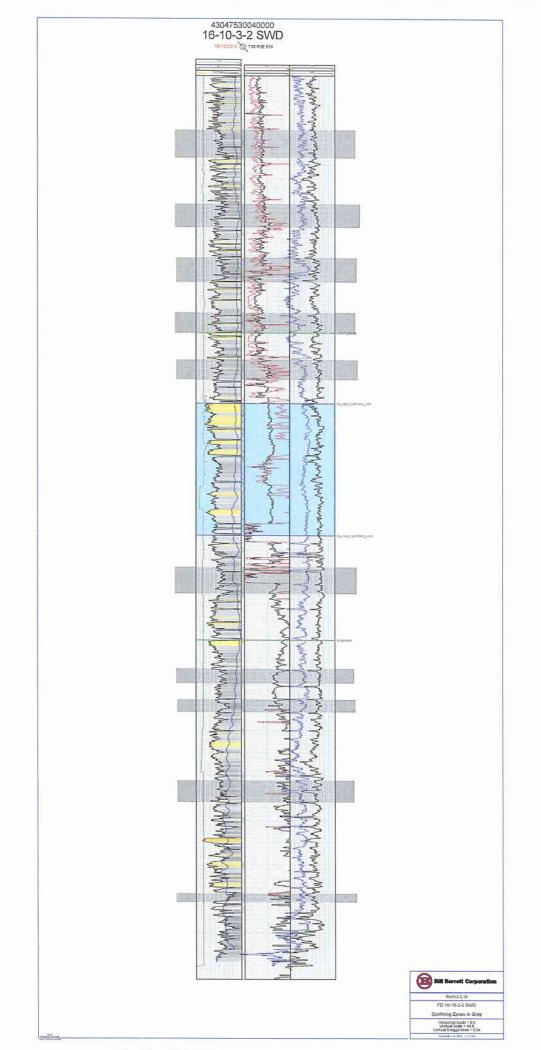
The Mesaverde Formation (Upper Cretaceous) consists of mostly gray to brown, well sorted, sandstone interbedded with greenish-gray silty shale. The sandstones are typically well sorted, medium grained, cross bedded and thin to thick bedded and are locally conglomeratic. Lower portion of the Mesaverde Formation often contains coals. Mesaverde deposition took place in continental fluvial to flood plain depositional environments. The Mesaverde Formation is the deepest formation penetrated in the immediate area of the FD 16-10-3-2 SWD area.

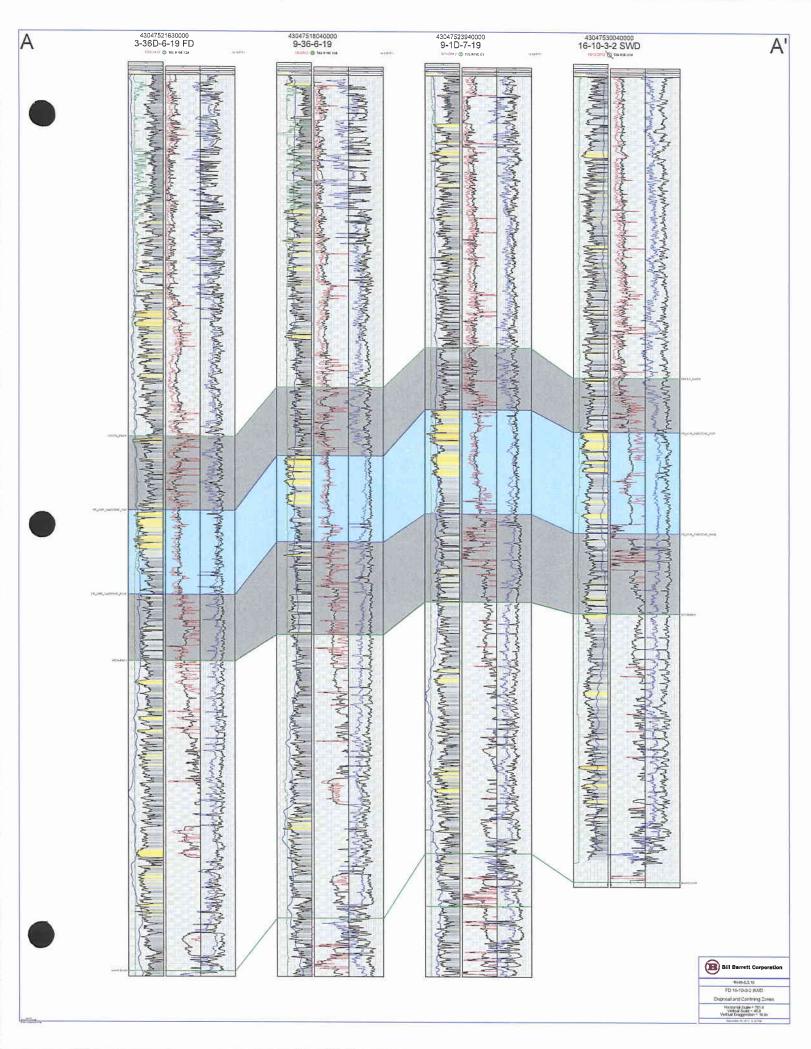
R649-5

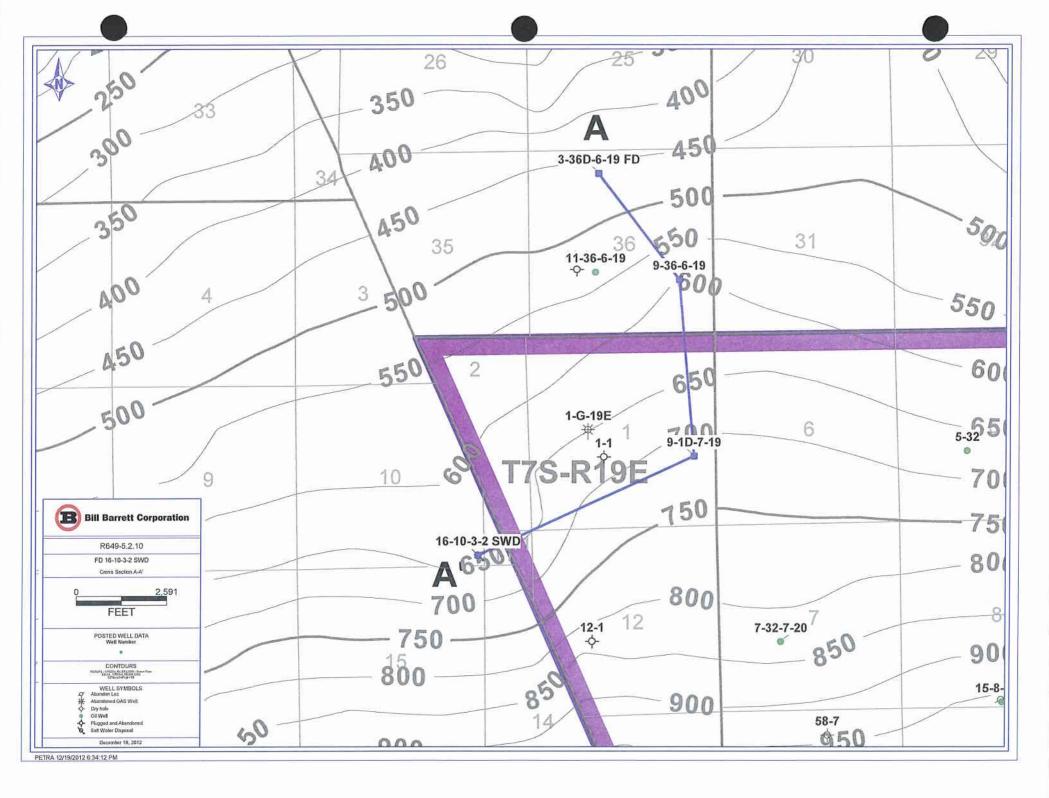
2.10.3

Information relative to geologic structure near the proposed well that may effect the conveyance and/or storage of the injected fluids:

The FD 16-10-3-2 SWD proposed injection well is drilled in a location of gradual and uniform structural dip to the NNW of approximately 150'/mile. There is no indication of any significant geologic structure in the area that would affect the conveyance or storage of injected fluids. Natural porosity and permeability of the Upper Green River formation are expected to accommodate the injected fluids without significant contribution from natural fractures.







R649-5

2.11

A review of the mechanical condition of each well within a one-half mile radius of the proposed injection well to assure that no conduit exists that could enable fluids to migrate up or down the wellbore and enter improper intervals.

Other Offsets:

There are no wells within ½ mile radius of this well.

AFFIDAVIT OF NOTICE

FD 16-10-3-2 SWD SESE Sec. 10, T3S, R2E Uintah County, UT API #43047530040000

I, Thomas J. Abell, a Landman with Bill Barrett Corporation ("BBC"), certify that a true and correct copy of UIC Form 1 Application for Injection Well with supplemental ownership information was provided, by certified mail, to the following operators, owners and surface owners located within a one-half (1/2) miles radius exposure of the captioned location pursuant to R649-5-2.12 of Oil and Gas Conservation, General Rules.

Ann L. Ellis 1658 Binford Street Ogden, UT 84401

Bernice C. Drage 338 South 1400 East Spanish Fork, UT 84660

Bureau of Land Management Utah State Office University Club Building 136 East South Temple Salt Lake City, UT 84111

Carl Victor Larson 623 South 1700 East Spanish Fork, UT 84660

Don C. Larson 301 East Eagle View Lane Blanding, UT 84511

Gene Brown Ranches, LC HC 69 Box 160 Randlett, UT 84063

George Marion Calder 116 West 500 North Vernal, UT 84078

Harold W. Marrs PO Box 110 Vernal, UT 84078

Jack D. Close 4153 Ridge Crest Drive Las Vegas, NV 89121

R. James Brough P.O. Box 367 Roosevelt, UT 84066

Kenneth and Elsie Calder 134 West 500 North Vernal, UT 84078 The Ralph V. and Geraldine C. Larson Revocable Trust 1232 South 490 West Orem, UT 84058

Lever, Ltd. 29900 St. Andrews Rd. Perrysburg, OH 43551

Lonnie Hogan HC 69 Box 109 Randlett, UT 84063

Melvin D. Close 2124 Redbird Drive Las Vegas, NV 89121

Nancy E. Gonzalez 4971 Orienda Circle Las Vegas, NV 89120

Norma Close 1796 North Cobblestone Drive Provo, UT 84604

Patricia Close 3734 Mountcrest Drive Las Vegas, NV 89121

Paul R. Larson 1672 North 175 West Cedar City, UT 84721

Grant G. Pickup Family Living Trust 1655 East Fieldcrest Lane Salt Lake City, UT 84117

Ray Christmas PO Box 386 Castle Dale, UT 84513

Ryan W. Lynch 2440 Edith Av. Redwood City, CA 94063

State of Utah School and Institutional Trust Lands Administration 675 East 500 South, Suite 500 Salt Lake City, UT 84102 Attn: Lavonne Garrison

Ute Indian Tribe PO Box 190 Fort Duchesne, UT 84026 Attn: Ms. Rose Taveapont Vaughn Parrish HC 69 Box 303 Randlett, UT 84063

Affiant

Thomas J. Abell, Landman

January 17, 2013

State of Colorado

County of Denver

Before me, the undersigned, on the date as given above, personally appeared Thomas J. Abell known to me to be the person whose name is subscribed to the foregoing instrument for the purpose and consideration therein expressed.

KEVIN T. FUNK Notary Public State of Colorado

)

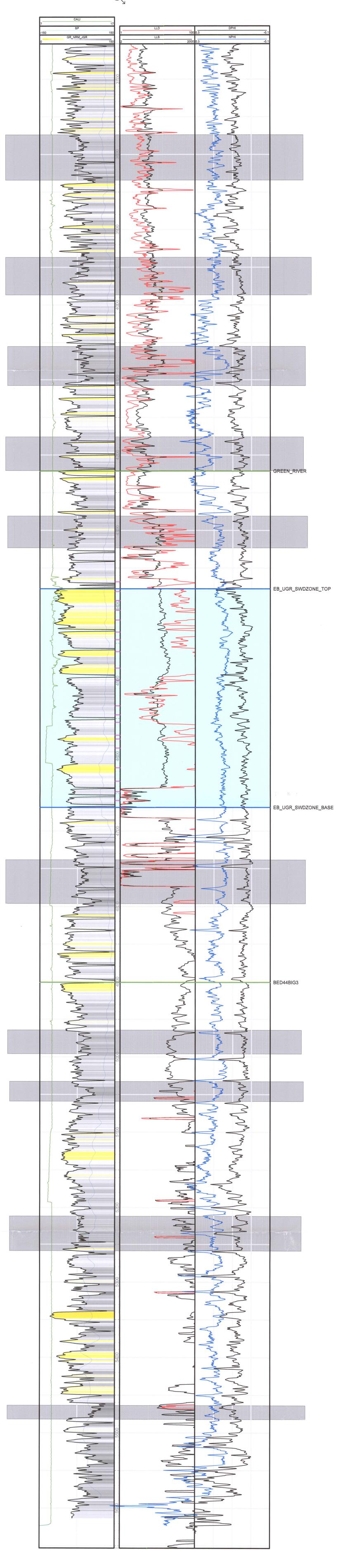
My Commission Expires 3-21-2016

Given my hand seal.

My commission expires: 3-21-2016

43047530040000 16-10-3-2 SWD

10/12/2012 T3S R2E S10



JAN 2 3 2013
DIV. OF OIL, GAS & MANING

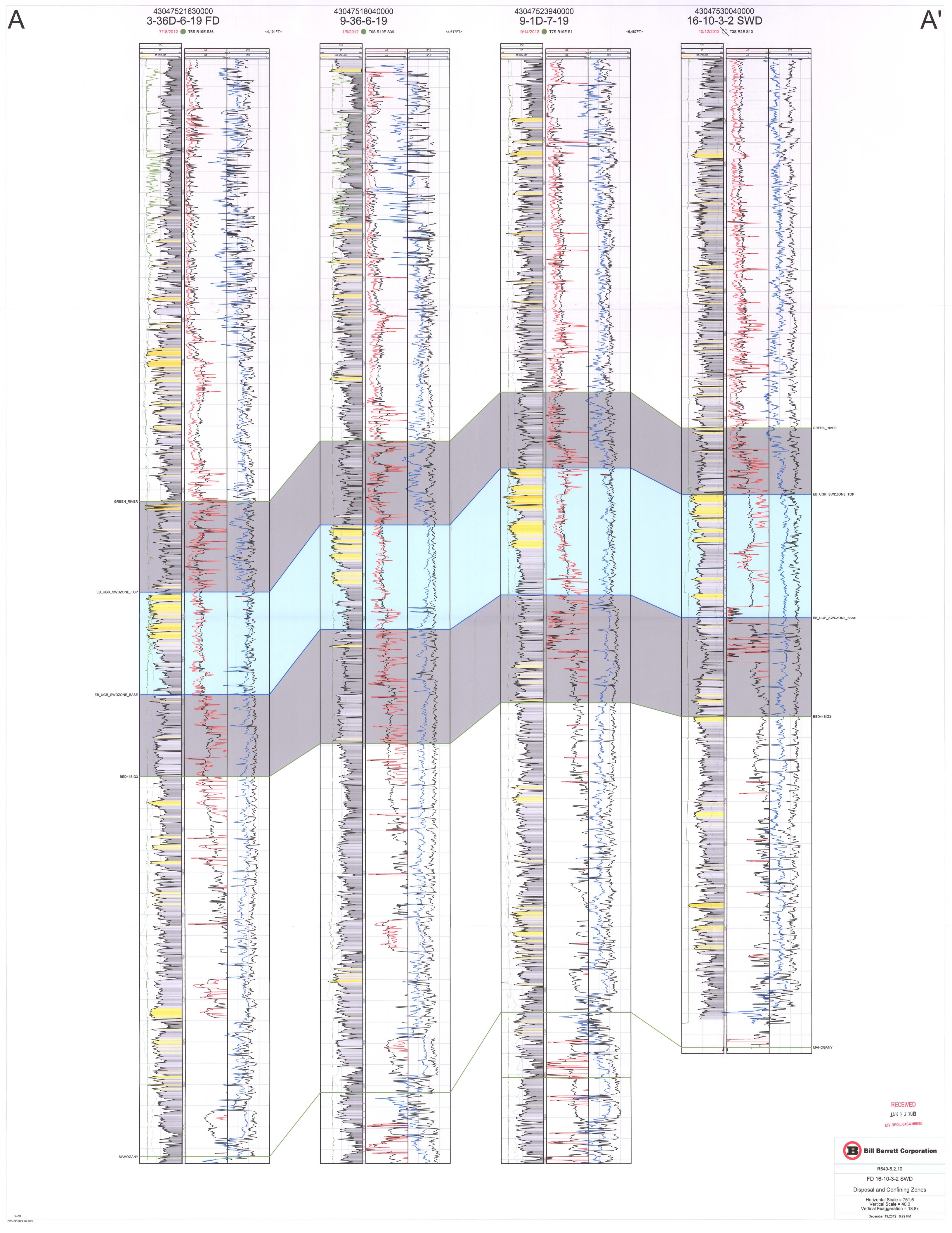


R649-5.2.10

FD 16-10-3-2 SWD
Confining Zones in Gray

Horizontal Scale = 0.0 Vertical Scale = 40.0 Vertical Exaggeration = 0.0x

December 19,2012 6:59 PM



Sundry Number: 38055 API Well Number: 43047530040000

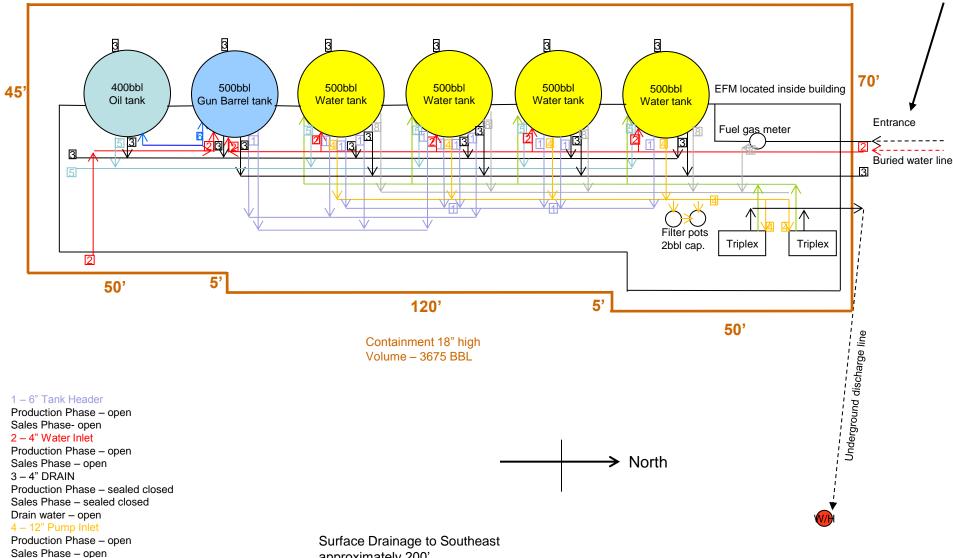
STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hot depth, recenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. 1, TYPE OF WELL. Water Disposal Well 2, ANNE OF OPERATOR: BILL BARRETT CORP 1, STATE CARRETT CORP 1, STATE CARRETT CORP 1, STATE CARRETT CORP 2, ANNE OF OPERATOR: CHOCK STATE SHEARCE: CHOCK							
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly despen existing wells below current bottom-floid edepth, renter by plugged wells, or 10 drill horizontal listerials. Use APPLICATION PGR PERMIT TO ORILL form for such proposals. 1. TYPE OF MELL Well Whitel Disposal We				FORM 9			
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION TORREMENT TO RRILL form for such proposals. 1.TYPE OF WELL WELL NAME and NUMBER: FD 16-10-3-2 SWD DO 16-10-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-	ı		3				
CURRENT DOTALL COME POPULATION 1.17YE OF WELL WARREST CORP 3. ADDRESS OF OFERATOR: 1.099 18IN Street Size 2300 . Deriver, CO, 80202 933 312-8134 Ext UNITAH 1.00CATION OF WELL FOOTAGES AT SURFACE: OFFICE OF SUBMISSION TYPE OF ACTION SUBMISSION SUBMISSION TYPE OF ACTION SUBMISSION TYPE OF ACTION SUBMISSIO	SUNDR	RY NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
VAIDED PROPATOR: STATE S	current bottom-hole depth, i	reenter plugged wells, or to drill horizontal		7.UNIT or CA AGREEMENT NAME:			
BILL BARRETT CORP 3. ADDRESS OF OPERATOR:	=						
1099 18th Street Size 2300 , Denver, CO, 80202 303 312-8134 EXT UNDESIGNATED **ALCACTION OF WELL **FOOTAGES AT SURFACE: OUTO FELL OUTO, SESS Section: 10 Township: 03.05 Range: 02.0E Meridian: U **TATE: UTAH **TATE: UTAH **TOPE OF SUBMISSION **TYPE OF SUBMISSION **TYPE OF SUBMISSION **TYPE OF ACTION **NOTICE OF NOTICE OF NOTICE AND COMMETED OPERATORS CHANGE COMMETED OF NOTICE							
POOTAGES AT SURFACE: OUTO FIST OF STEEL OTRIGITE, SECTION, TOWNSHIP, RANGE, MERIDIAN: OTTO FOR SUBMISSION TYPE OF SUBMISSION ACIDIZE ALTER CASING REPARI ORNAGE OF APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION ACIDIZE ALTER CASING REPARI ORNAGE TO PREVIOUS PLANS OFFICIATION OFFICIATION SUBMISSION ACIDIZE ALTER CASING REPARI ORNAGE TO PREVIOUS PLANS OFFICIATION							
Ottr/Gir: SESE Section: 10 Township: 03.05 Range: 02.0E Meridian: U 11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION TYPE OF ACTION TYPE OF ACTION ACDIZE ALTER CASING CARRIAG REPAR CASING REPAR CASING TURING COMMENT REPORT Dose of Wine Completions: 5/17/2013 COMMENCE TURING COMMENCE PRODUCING FORMATIONS COMMENCE TURING COMMENCE PRODUCING FORMATIONS COMMENCE PRACTICE TREAT COMMENCE PRODUCING FORMATIONS COMMENCE P	FOOTAGES AT SURFACE:						
TYPE OF SUBMISSION TYPE OF ACTION ACIDIZE ALTER CASING CHANGE TO RETOUT CHANGE TO PROVOUS PLANS CHANGE TURBING CHANGE TO RETOUT CHANGE TO PROVOUS PLANS CHANGE TURBING CH	QTR/QTR, SECTION, TOWNSH		U				
ACIDIZE		K APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPOR	RT, OR OTHER DATA			
NOTICE OF INTENT	TYPE OF SUBMISSION		TYPE OF ACTION				
Approximate date work will start: Subsociate report Observed with Combision of Public Work Combision of Oil, Gas and Mining FOR RECORD ONLY NAME (PLEASE PRINT) PHONE NUMBER TITLE Permit Analyst		ACIDIZE	ALTER CASING	CASING REPAIR			
SUBBOULENT REPORT Date of Spud: CHANGE WELL STATUS		CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME			
SUBSCUENT REPORT Date of Work Completion: 5/17/2013 OPERATOR CHANGE PLUG AND ABANDON PLUG BACK PRODUCTION START OR RESUME RECLAMATION OF WELL SITE RECOMPLETE DIFFERENT FORMATION SIDETRACK TO REPAIR WELL TEMPORARY ABANDON PLUG BACK PRODUCTION START OR RESUME RECLAMATION OF WELL SITE RECOMPLETE DIFFERENT FORMATION SIDETRACK TO REPAIR WELL TEMPORARY ABANDON PLUG BACK REPORT WATER SHUTOFF SITA STATUS EXTENSION APD EXTENSION ACCEPTED BY THE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. First injection date for this SWD well was on 5/17/2013.	Approximate date work will start:						
SPUD BEPORT Date of Spud: PLUS AND ABANDON PLUS BACK PRODUCTION START OR RESUME RECLAMATION OF WELL SITE RECOMPLETE DIFFERENT FORMATION SIDETRACK TO REPAIR WELL TEMPORARY ABANDON TUBING REPAIR WATER DISPOSAL WATER DISPOSAL WATER SHUTOFF SITA STATUS EXTENSION APD EXTENSION APD EXTENSION THERE TOTHER: Imjection Start-up 12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. First injection date for this SWD well was on 5/17/2013. NAME (PLEASE PRINT) PHONE NUMBER TITLE Permit Analyst SIGNATURE Permit Analyst SIGNATURE DATE							
SPUD REPORT Date of Spud: PRODUCTION START OR RESUME RECLAMATION OF WELL SITE RECOMPLETE DIFFERENT FORMATION SIDETRACK TO REPAIR WELL TEMPORARY ABANDON TUBING REPORT WATER SHUTOFF SITA STATUS EXTENSION APD EXTENSION WILDCAT WELL DETERMINATION OTHER Injection Start-up 12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. First injection date for this SWD well was on 5/17/2013. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY June 11, 2013 NAME (PLEASE PRINT) PHONE NUMBER TITLE Brady Riley 303 312-8115 TITLE Permit Analyst SIGNATURE DATE							
Date of Spud: REPERFORATE CURRENT FORMATION SIDETRACK TO REPAR WELL TEMPORARY ABANDON TUBING REPAR VENT OR FLARE WATER DISPOSAL WATER SHUTOFF SI TA STATUS EXTENSION APD EXTENSION WILDCAT WELL DETERMINATION OTHER Imjection Start-up 12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. First injection date for this SWD well was on 5/17/2013. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY June 11, 2013 June 11, 2013 DAME (PLEASE PRINT) PHONE NUMBER TITLE Permit Analyst SIGNATURE DATE		☐ OPERATOR CHANGE	PLUG AND ABANDON	L PLUG BACK			
DRILLING REPORT Report Date: TUBING REPAIR VENT OR FLARE WATER DISPOSAL		PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
DRILLING REPORT Report Date: WILDCAT WELL DETERMINATION THER: Injection Start-up OTHER: Injection S		REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	L TEMPORARY ABANDON			
Report Date: WATER SHUTOFF WILDCAT WELL DETERMINATION THER Imjection Start-up ACCEPTED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. First injection date for this SWD well was on 5/17/2013. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY June 11, 2013 NAME (PLEASE PRINT) Brady Riley 303 312-8115 TITLE Permit Analyst SIGNATURE DATE		TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL			
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. First injection date for this SWD well was on 5/17/2013. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY June 11, 2013 NAME (PLEASE PRINT) PHONE NUMBER Brady Riley 303 312-8115 TITLE Permit Analyst SIGNATURE DATE		WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION			
First injection date for this SWD well was on 5/17/2013. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY June 11, 2013 NAME (PLEASE PRINT) Brady Riley 303 312-8115 PHONE NUMBER Permit Analyst SIGNATURE DATE		☐ WILDCAT WELL DETERMINATION ✓	OTHER	OTHER: Injection Start-up			
Brady Riley 303 312-8115 Permit Analyst SIGNATURE DATE	First injection	COMPLETED OPERATIONS. Clearly show all pe	on 5/17/2013.	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY			
	SIGNATURE N/A		DATE 5/20/2013				

RECEIVED: May. 20, 2013

Sundry Number: 38875 API Well Number: 43047530040000

	STATE OF UTAH				FORM 9
ı	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI			5.LEASE DESIGN Fee	ATION AND SERIAL NUMBER:
SUNDR	RY NOTICES AND REPORTS	ON V	WELLS	6. IF INDIAN, ALL	OTTEE OR TRIBE NAME:
	oposals to drill new wells, significantly reenter plugged wells, or to drill horize n for such proposals.			7.UNIT or CA AG	REEMENT NAME:
1. TYPE OF WELL Water Disposal Well				8. WELL NAME at FD 16-10-3-2	
2. NAME OF OPERATOR: BILL BARRETT CORP				9. API NUMBER: 43047530040	000
3. ADDRESS OF OPERATOR: 1099 18th Street Ste 2300	, Denver, CO, 80202		NE NUMBER: 12-8134 Ext	9. FIELD and POO UNDESIGNATE	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0400 FSL 0150 FEL				COUNTY: UINTAH	
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 0 Township: 03.0S Range: 02.0E Merio	dian: U		STATE: UTAH	
11. CHEC	K APPROPRIATE BOXES TO INDICA	ATE NA	ATURE OF NOTICE, REPOR	T, OR OTHER [DATA
TYPE OF SUBMISSION			TYPE OF ACTION		
	ACIDIZE		LTER CASING	CASING RE	EPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	С	HANGE TUBING	CHANGE V	VELL NAME
Approximate date work will start:	CHANGE WELL STATUS	☐ c	OMMINGLE PRODUCING FORMATIONS	CONVERT	WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	☐ FF	RACTURE TREAT	□ NEW CON	STRUCTION
6/6/2013	OPERATOR CHANGE		LUG AND ABANDON	PLUG BAC	
	PRODUCTION START OR RESUME		ECLAMATION OF WELL SITE		ETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION		DETRACK TO REPAIR WELL		RY ABANDON
DRILLING REPORT	L TUBING REPAIR		ENT OR FLARE	☐ WATER DIS	
Report Date:	WATER SHUTOFF	∟ sı	TA STATUS EXTENSION	☐ APD EXTE	NSION
	WILDCAT WELL DETERMINATION	√ 01	THER	OTHER: SSD	
	COMPLETED OPERATIONS. Clearly show			Accept Utah D Oil, Gas FOR RE	ted by the Division of and Mining CORD ONLY 1, 2013
NAME (PLEASE PRINT) Brady Riley	PHONE NUMI 303 312-8115	BER	TITLE Permit Analyst		
SIGNATURE	JUJ J12-0110		DATE		
N/A			6/10/2013		

Sundry Number: 38875 API Well Number: 248047530040000



approximately 200'.

Site Security Plan Located at **Bill Barrett Corporation** Roosevelt Office ROUTE 3 BOX 3110 1820 W HIGHWAY 40 ROOSEVELT, UT 84066

BILL BARRETT CORPORATION

FEE Fort Duchesne 16-10-3-2 SWD SE1/4 SE1/4 SEC 10,T3S, R2E, Lease # FEE API # 43-047-53004 Uintah Co. Utah

Sales Phase - sealed closed 7-3" Relief line Production – open Sales – open

Production Phase – open Sales Phase - open

6 – 4" Equalizer to Oil Tank

Production Phase - open

5 – 4" Skim Line

8 – 2" Dump Line

The Salt Lake Tribune



DIV. OF OIL, GASE MINING

9001402352

Deseret News

PROOF OF PUBLICATION

CUSTOMER NAME AND ADDRESS

DIV OF OIL-GAS & MINING.

FEB 2 0 2013

CUSTOMER'S COPY

DATE

2/15/2013

İ					·
	1594 W NORTH TEMP #1210 P.O. BOX 145801 SALT LAKE CITY, UT 84114		Fb		3-25WD
].	One of the ciri,		J 3S	2E	10
	ACCOU	NT NAME			
	DIV OF OIL-G	AS & MINING,			
	TELEPHONE	ADORDER#	/ INVOICE NUM	3ER	
	8015385340	0000858333	1		
	SCHI	EDULE			
	Start 02/15/2013	End 02/15/2	013	BEFORE THE DIVIS DEPARTMEN NOTICE CAUS	SION OF OIL, GAS AND MINING FOF NATURAL RESOURCES STATE OF UTAH E OF AGENCY ACTION SE NO. UIC - 405.1
, ,	CUST,	REF. NO.		IN THE MATTER OF THE	APPLICATION OF BILL BARRETT COR- STRATIVE APPROVAL OF THE FD 16- ATED IN SECTION 10, TOWNSHIP 3S,
	Cause No. UIC-4	105.1		RANGE 2E, UINTAH COL WELL.	INTY, UTAH, AS A CLASS II INJECTION
	CAI	PTION		THE STATE OF UTAH T ABOVE ENTITLED MATTER Notice is hereby given	O ALL PERSONS INTERESTED IN THE that the Division of Oil, Gas and Min-
BEF	ORE THE DIVISION OF OIL, GAS AND M	IINING DEPARTME	NT OF NATURAL	ing (the "Division") is proceeding to consider ration, 1099 18th Str (303) 312-8115, for c	that the Division of Oil, Gas and Min- commencing an informal adjudicative the application of Bill Barrett Corpo- set 2300, Denver, Colorado, 80202, administrative approval of the FD 16- 1 #49-647-58004, located in SE/4 ship 35, Range 2E, Unitra Baseline and , Utah, for conversion to a Class I in- licative proceedings will be conducted Utah Admin. Rule R649-10, Adminis-
	s	IZE		SE/4, Section 10, Town Meridian, Uintah County Section well. The adjud	ship 35, Range 2E, Uinta Baseline and Utah, for conversion to a Class II in- licative proceedings will be conducted
	51 Lines	2.00	COLUMIN	Salasted zones in the l	loner Green River Formation will be
	TIMES			used for water injection pressure and rate will li dient information submit	 The maximum requested injection be determined based on fracture gra- ted by Bill Barrett Corporation.
	4			Any person desiring to intervene in the proceetice of intervention with	object to the application or otherwise ling, must file a written protest or no- h the Division within fiften days fol- is notice. The Division's Presiding Of- g is Brad Hill, Permitting Monager, at Lake City, Utah 8411 4-501, phone 0. If such a protest or notice of inter- hearing will be scheduled in accord- tioned administrative procedure rule. veners should be prepared to demon-
	MISC. CHARGES		AD CHARGES	lowing publication of the ficer for the proceedin P.O. Box 145801, Salt	is notice. The Division's Presiding Of- g is Brad Hill, Permitting Manager, at Lake City, Utah 84114-5801, phone
				vention is received, a ance with the aforemer Protestants and/or inte strate at the hearing ho	thearing will be scheduled in accorditioned administrative procedure rule, reeners should be prepared to demonstrative matter affects their interests.
L			TOTAL COST	Dated this 12th day of STATE OF UTAH DIVISION OF OIL, GAS	February, 2013.
			176.36	/s/ Brad Hill Permitting Manager 85 <u>8333</u>	UPAXLP
	Al	FFIDAVIT OF PUBLICAT	ION		

AS NEWSPAPER AGENCY COMPANY, LLC dba MEDIAONE OF UTAH LEGAL BOOKER, I CERTIFY THAT THE ATTACHED ADVERTISEMENT OF BEFORE THE DIVISION OF OIL, GAS AND MINING DEPARTMENT OF NATURAL RESOURCES STATE OF UTAH NOTICE OF AGENCY ACTION CAUSE NO. UIC - 405.1 IN THE MATTER OF THE APP FOR DIV OF OIL-GAS & MINING, WAS PUBLISHED BY THE NEWSPAPER AGENCY COMPANY, LLC dba MEDIAONE OF UTAH, AGENT FOR THE SALT LAKE TRIBUNE AND DESERET NEWS, DAILY NEWSPAPERS PRINTED IN THE ENGLISH LANGUAGE WITH GENERAL CIRCULATION IN UTAH, AND PUBLISHED IN SALT LAKE CITY, SALT LAKE COUNTY IN THE STATE OF UTAH. NOTICE IS ALSO POSTED ON UTAHLEGALS.COM ON THE SAME DAY AS THE FIRST NEWSPAPER PUBLICATION DATE AND REMAINS ON UTAHLEGALS.COM INDEFINATELY.

PUBLISHED ON	

SIGNATURE

2/15/2013

Start

02/15/2013

02/15/2013 End

VINCINIA CRAFT Notary Public, State of Utah Commission # 581469 My Commission Expires

2014

THIS IS NOT A STATEMENT BUT A "PROOF OF PUBLICATION PLEASE PAY FROM BILLING STATEMENT

AFFIDAVIT OF PUBLICATION

County of Duchesne, STATE OF UTAH

Publisher

Subscribed and sworn to before me on this

by Kevin Ashby.

Notary Public



NOTICE OF AGENCY ACTION CAUSE NO. UIC – 405.1

BEFORE THE DI-VISION OF OIL, GAS AND MINING, DE-PARTMENT OF NAT-URAL RESOURCES, STATE OF UTAH

IN THE MATTER
OF THE APPLICATION OF BILL
BARRETT CORPORATION FOR ADMINISTRATIVE APPROVAL OF THE
FD-16-10-3-2-8WD
WELL LOCATED IN
SECTION 10, TOWNSHIP 3S, RANGE 2E,
UINTAH, COUNTY,
UTAH, AS A CLASS
IINJECTION WELL
THE STATE OF

THE STATE OF UTAH TO ALL PER-SONS INTERESTED IN THE ABOVE EN-TITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Min-ing (the "Division") is commencing an informal adjudicative proceeding to consider the application of Bill Barrett Corporation, 1099 18th Street 2300, Denver, Colorado, 80202, (303)312-8115, for administrative approval of the FD 16-10-3-2 SWD well, API #43-047-53004, located in SE/4 SE/4, Section 10, Township 3S, Range 2E, Uinta Baseline and Meridian, Uintah County, Utah, for conversion to a Class II injection well. The adjudicative proceedings will be conducted informally according to Utah Admin. Rule R649-10, Administrative Procedures.

Selected zones in the Upper Green River Formation will be used for water injection. The maximum requested injection pressure and rate will be determined based on fracture gradient information submitted by Bill Barrett MAIL PARKISH mmlasion #653427 Commission Expires ebruary 23, 2016 tate of Utah informally according to Utah Admin. Rule R649-10, Administrative Procedures.

Selected zones in the Upper Green River Formation will be used for water injection. The maximum requested injection pressure and rate will be determined based on fracture gradient information submitted by Bill Barrett Corporation.

Any person desiring to object to the application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. The Division's Presiding Officer for the pro-ceeding is Brad Hill, Permitting Manager, at P.O. Box 145801, Salt Lake City, Utah 84114-5801, phone number (801) 538-5340. If such a protest or no-tice of intervention is received, a hearing will be scheduled in accordance with the aforementioned administrative procedure rule. Protestants and/ or interveners should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 12th day of February, 2013. STATE OF UTAH DIVISION OF OIL, GAS & MINING

Brad Hill
Permitting Manager
Published in the
Uintah Basin Standard
February 19, 2013.

Send Payments to: Uintah Basin Standard 268 S 200 E Roosevelt, Utah 84066

Phone: 435-722-5131 Fax: 435-722-4140





Advertiser No.

Invoice Number

Invoice Date

41802

2/19/2013

Invoice Amount

Due Date

2080

\$96.25

3/21/2013

DIVISION OF OIL GAS & MINING Rose Nolton 1594 W. N.TEMPLE STE 121 PO BOX 145801 **SALT LAKE CITY, UT 84114-5801** RECEIVED FEB 2 6 2013

1 1/2% fee will tiel tharged to all past due balances.

Amount Enclosed

Disease datach too goding and robust with your navment

INVOICE

intah Basin Standard DIVISION OF		rd	DIVISION OF OIL GAS & MINING		Invoice	2/19/2013	
Date	Order		Description	Ad Size	SubTotal	Sales Tax	Amount
2/19/2013 20850	50 UBS	UBS Legal Notice: Notice of Agency Action, Cause No. UIC-405.1 Pub. Feb. 19, 2013			•	\$96.25	
			•			Sub Total:	\$96.25
				Total Transactions:	: 1	Total:	\$96.25

SUMMARY

Advertiser No.

2080

invoice No.

41802

1 1/2% fee will be charged to all past due balances.

Thank You for your business!

Thank you for advertising with us, we appreciate your business!